

1991-1993
CATALOG

Durham Technical
Community
College 



1991-1993 Catalog

1637 Lawson Street
Durham, North Carolina 27703-5023
(919) 598-9222

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This catalog supersedes all previous catalogs. Information about programs, fees, and regulations contained in earlier issues is now out-of-date. The provisions of this publication are not to be regarded as an irrevocable contract between the student and Durham Technical Community College. The College reserves the right to make changes in the regulations, courses, fees, and other matters of policy and procedure as and when deemed necessary. Every effort will be made to minimize the inconvenience such changes might create for students.

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Contents

Message from the President, 4

Academic Calendar, 5

General Information, 7

Admission, Fees, Financial Aid

General Information, 9

Admission Procedure, 9

Admission and Registration Requirements, 10

Tuition, Fees, and Parking Requirements, 13

Financial Aid, 15

Veterans Information, 17

Academic Information

Classification of Programs of Study, 18

Classification of Students, 18

Plan of Study, 18

Transfer Credit, 19

Grading System, 20

Standards of Progress, 21

Academic Recognition, 21

Student-Instructor Responsibilities, 22

Attendance, 22

Tardiness and Early Departure, 22

Student Conduct, 22

Drug and Alcohol Policy, 22-23

Academic Honesty, 23

Student Grievance Procedures, 23

Transfer to Senior Colleges and Universities, 24

Services and Special Programs

Career Emphasis Clusters, 25

Career Planning and Placement Center, 25

Counseling Services, 25

Curriculum/Telecourse Center, 25

Educational Resources, 25

International Student Advisement, 25

Services for the Handicapped and Learning Disabled, 26

Single Parent/Homemaker Program, 26

Student Activities, 26

Student Advisory Council, 27

Student Ambassador Program, 27

Tutorial Services, 27

Visiting Artist Program, 27

Adult and Continuing Education

Continuing Education, 28

Customized Training for Business and Industry, 29

Literacy Skills, 29

Programs of Study

Accounting, 32

Administrative Office Technology, 33

Architectural Drafting, 34

Associate Degree Nursing, 35

Automotive Mechanics, 36

Business Administration, 37

Business Computer Programming, 38

College Transfer, 39

Criminal Justice-Protective Services Technology, 40

Dental Laboratory Technology, 41

Digital Electronic Repair, 42

Early Childhood Associate, 43

Electronics Engineering Technology, 44

Fire Protection Technology, 45

General Education, 46

General Office, 47

Industrial Electricity/Motors and Controls, 48

Industrial Management Technology, 49

Machinist, 50

Medical Office Technology, 51

Microcomputer Systems Technology, 52

Microelectronics Technology, 53

Military Science Technology, 54

Optical Laboratory Mechanics, 55

Opticianry, 56

Paralegal Technology, 57

Pharmacy Technology, 58

Phlebotomy, 59

Practical Nursing, 60

Real Estate Appraisal, 61

Real Estate Technical Specialty, 62

Residential Carpentry and Preservation, 63

Respiratory Care Technician, 64

Respiratory Care Technology, 65

Course Descriptions, 66

Trustees and College Personnel, 103

Adjunct Faculty, 109

Index, 110

Map, 111

Message from the President



Our doors are open to *you*. I invite you to come to Durham Technical Community College and enter the world of postsecondary education.

Durham Tech covers the range of educational options. We award the Associate in Arts, Associate in Science, Associate in General Education, and Associate in Applied Science degrees, plus diplomas and certificates. Durham Tech is truly a comprehensive community college.

In the past year, nearly 27,000 Triangle-area residents walked through our doors. They entered programs in the liberal arts, health

technologies, and computer programming. They took classes in adult basic education and English as a Second Language. Striving to enhance their skills and careers, they updated their training through one of our Career Emphasis Clusters. Some just wanted to meet people and take a class for fun. Discovering our continuing education classes, many area citizens signed up for such courses as Japanese, finance, and floral design.

Throughout the coming years, we will continue to broaden our options for students by expanding not only our educational programs and goals, but by expanding our campus as well.

We are building a northern Durham County satellite campus, which will open new doors for even more people in the area. The northern campus will take shape in five phases, to be completed over a period of 10 to 15 years. The first of these phases, now underway, includes a 30,000-square-foot, multipurpose facility.

At the northern campus, we will offer curriculum programs, non-credit courses, and customized training for business and industry. Students attending classes at the new facility will receive the hands-on training that Durham Tech is known for—the same training that gives our students a competitive edge in the job market.

Durham Tech's main campus and our other satellite centers, always accessible, continue to thrive. We offer classes during the day, in the evenings, and on the weekends. The main campus is only five minutes from downtown Durham and the Research Triangle Park. And, our present satellite centers are conveniently located in Chapel Hill, Durham, and Hillsborough.

Join us at Durham Technical Community College. We have a lot to offer you!

Phail Wynn, Jr., Ed.D., M.B.A.

President, Durham Technical Community College

Academic Calendar

Fall Quarter 1991

September 3-4	General Registration
September 5	Main Campus Classes Begin
September 6	Weekend College Classes Begin
November 16	Weekend College Classes End
November 20	Main Campus Classes End

Winter Quarter 1991-1992

November 25	General Registration
November 26	Main Campus Classes Begin
November 28-December 1	Thanksgiving Break—College Closed
December 6	Weekend College Classes Begin
December 23-January 1	Christmas Break—College Closed
January 2	Main Campus Classes Resume
January 3	Weekend College Classes Resume
January 20	Martin Luther King Holiday—College Closed
February 22	Weekend College Classes End
February 25	Main Campus Classes End

Spring Quarter 1992

March 4	General Registration
March 5	Main Campus Classes Begin
March 6	Weekend College Classes Begin
April 17-20	Easter Break—College Closed
May 22	Main Campus Classes End 1991-92 Graduation Exercises
May 23	Weekend College Classes End
May 25	Memorial Day Holiday—College Closed

Summer Quarter 1992

May 28	General Registration
May 29	Main Campus Classes Begin
July 3	Independence Day Holiday—College Closed
August 7	Main Campus Classes End
August 10-21	Summer Break—Administrative Offices Open

Fall Quarter 1992

September 1-2	General Registration
September 3	Main Campus Classes Begin
September 4	Weekend College Classes Begin
September 7	Labor Day Holiday—College Closed
November 14	Weekend College Classes End
November 19	Main Campus Classes End

Winter Quarter 1992-93

November 24	General Registration
November 25	Main Campus Classes Begin
November 26-29	Thanksgiving Break—College Closed
December 4	Weekend College Classes Begin
December 23-January 1	Christmas Break—College Closed
January 4	Main Campus Classes Resume
January 8	Weekend College Classes Resume
January 18	Martin Luther King Holiday—College Closed
February 26	Main Campus Classes End
February 27	Weekend College Classes End

Spring Quarter 1993

March 4	General Registration
March 5	Main Campus Classes Begin
	Weekend College Classes Begin
April 9-12	Easter Break—College Closed
May 22	Weekend College Classes End
May 24	Main Campus Classes End
	1992-93 Graduation Exercises

Summer Quarter 1993

May 27	General Registration
May 28	Main Campus Classes Begin
May 31	Memorial Day Holiday—College Closed
July 2	Independence Day Holiday—College Closed
August 9	Main Campus Classes End
August 10-23	Summer Break—Administrative Offices Open

Dates appearing in the Academic Calendar are subject to change.

Inquiries about the calendar may be made to the Academic Services Division, (919) 598-9256.

General Information



North Carolina Community College System

The community college system was created by legislation passed by the 1963 General Assembly of North Carolina. The legislation provided that the system of community colleges and technical institutes would be administered by a Department of Community Colleges under the State Board of Education. In January 1981, the supervision of the community college system became the responsibility of the State Board of Community Colleges.

The community college system in North Carolina provides educational experiences for those beyond normal high school age, 18 years old or older, whether they are high school graduates or not. The educational opportunities range from instruction in basic literacy skills to college-level courses, including general adult education as well as vocational, technical, and College Transfer programs. These opportunities are available to all of suitable age who wish to learn and who can profit from the instruction provided.

In 1964, Dr. Dallas Herring, former chairman of the State Board of Education, developed a statement of philosophy for North Carolina community colleges; and it is published in the Department of Community Colleges Policy Manual. Dr. Herring stated:

The only valid philosophy for North Carolina is the philosophy

to total education: a belief in the incomparable worth of all human beings, whose claims upon the state are equal before the law and equal before the bar of public opinion, whose talents (however great or however limited or however different from the traditional) the state needs and must develop to the fullest possible degree. That is why the doors to the institutions in North Carolina's system of community colleges must never be closed to anyone of suitable age who can learn what they teach. We must take the people where they are and carry them as far as they can go within the assigned function of the system. If they cannot read, then we will simply teach them to read and make them proud of their achievement. If they did not finish high school, but have a mind to do it, then we will offer them a high school education at a time and in a place convenient to them and at a price within their reach. If their talent is technical or vocational, then we will simply offer them instruction, whatever the field, however complex or however simple, that will provide them with the knowledge and the skill they can sell in the marketplace of our state, and thereby contribute to its scientific and industrial growth. If their needs are in the great tradition of liberal education, then we will simply provide them the instruction extending through two years of standard college work which will enable them to go on to the university or to senior college, and on into life in numbers unheard of in North Carolina. If their needs are for cultural advancement, intellectual growth or civic understanding, then we will simply make available to them the wisdom of the ages and the enlightenment of our times and help them on to maturity.

Durham Technical Community College

Durham Technical Community College is a charter member of the North Carolina Community College System. When the North Carolina General Assembly authorized a small appropriation to establish a limited number of area schools to be known as industrial education centers in 1957, Durham already had a vigorous program in adult education underway through the Vocational and Adult Education Department of the Durham City Schools. A Practical Nursing program had been established in 1948; other programs included training in mechanical drafting, architectural drafting, and electronics technology. In addition, literacy skills training was offered for adults. Courses to upgrade the skills of workers were also offered in a variety of trades.

As a result of the General Assembly's appropriation, a challenge went out from the State Board of Education to the various school administrative units in North Carolina to establish separate educational facilities which would provide for the educational needs of the area's adult population. A comprehensive curriculum was devised for citizens needing the education and the technical skills required to advance satisfactorily in their careers.

Through action by the Durham City Board of Education, Durham was among the first of six counties in North Carolina

to meet the State Board of Education's challenge. In a successful referendum in June 1958, Durham County residents made \$500,000 available to purchase a site and erect the initial building. The Durham Industrial Education Center officially opened its doors on September 5, 1961. The institution continued to operate as an Industrial Education Center until February 4, 1965, when the State Board of Education officially designated that henceforth it be properly identified as a technical institute. On March 30, 1965, the Board of Trustees authorized the name of the institution be changed to Durham Technical Institute. On July 15, 1986, the N.C. General Assembly approved Durham Tech's request to add a College Transfer program to its curriculum offerings. During a meeting on July 22, 1986, the Board of Trustees authorized the institution to change its name to Durham Technical Community College.

Philosophy

American democracy's future depends on an educated and responsible citizenry. Realizing this, Durham Technical Community College conceives its purpose to be the development of an individual's maximum potential. Established to provide educational opportunities distinct from those offered through traditional academic education, Durham Technical Community College also seeks to inspire an active desire for continuing personal development. Financially and geographically, Durham Tech provides an educational opportunity not otherwise available to area adults.

As a community-based institution, Durham Technical Community College provides educational opportunities for area citizens and uses local resources for students' learning activities. Community service is a continuing focus for the College's programs and activities.

Striving for maximum flexibility in course offerings, Durham Technical Community College employs an "open door with guided placement policy" to provide as many educational opportunities as possible for specialized training. Specifically, Durham Tech attempts to accept individuals where they are educationally and strives to provide them with opportunities to pursue educational programs leading to their career goals.

Purpose

Within the scope and meaning of the North Carolina General Statute 115D, which creates and supports the College, and the guidelines established by the North Carolina State Board of Community Colleges, Durham Technical Community College's purpose is to offer educational opportunities which meet an individual's personal or professional needs. Durham Tech, in striving to fulfill

its comprehensive mission, endeavors to meet these five objectives:

to offer postsecondary occupational education which develops the skills and knowledge required for students' employment as qualified technicians and skilled craftpersons;

to offer technical and vocational programs designed to improve and upgrade workers' skills for use in their present jobs;

to offer adults in the community numerous programs and courses which provide educational opportunities for basic skills improvement, high school completion, vocational advancement, and personal growth;

to offer a two-year course of study in the liberal arts and sciences which may be used as the first and second years of a baccalaureate degree program; and

to offer training to serve the needs of new, expanding, and existing industry.

Accreditation

Durham Technical Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate degrees. The College is a member of the American Association of Community and Junior Colleges, and the following programs are accredited by national associations: the Dental Laboratory Technology program is accredited by the Commission on Dental Accreditation of the American Dental Association, the Opticianry program is accredited by the Commission on Opticianry Accreditation, and the Respiratory Care Technician and Respiratory Care Technology programs are accredited by the Joint Review Committee for Respiratory Therapy Education and the American Medical Association. In addition, Durham Tech is accredited for pharmacy technician training by the American Society of Hospital Pharmacists.

Approbation

Durham Technical Community College is approved by and is a member of the North Carolina Department of Community Colleges. The following programs are approved by state agencies: the Opticianry program is approved by the North Carolina State Board of Opticians, the Practical Nursing and Associate Degree Nursing programs are approved by the North Carolina Board of Nursing, the Phlebotomy program is approved by the National Accrediting Agency for Clinical Laboratory Sciences, real estate courses are approved by the North Carolina Real Estate Commission, and insurance pre-licensing courses are approved by the North Carolina Department of Insurance.

Admission, Fees, Financial Aid

General Information

Durham Technical Community College operates under the "open door with guided placement" policy. Admission to the College is open to virtually all persons with a high school diploma or its equivalent.

Programs of study leading to a degree, diploma, or certificate are offered in the areas of health, business, public service, general education, and industrial and engineering technologies. In addition, the College offers the Associate in Science degree and the Associate in Arts degree through the College Transfer program. High school graduation or high school equivalency is required for all programs.

The admissions process includes the initial application, transcripts of secondary and postsecondary work, placement tests, and an optional counseling conference. Health examinations and reference forms are also required for some programs.

Placement in certain programs of instruction is limited, and particular emphasis is on vocational guidance. Through counseling conferences held prior to admission, applicants obtain assistance in establishing realistic goals. Educational achievements and placement test results are used in determining an individual's potential for success in a given instructional program.

Durham Tech reserves the right to refuse admission to an applicant if it appears such action is in the best interest of the College and/or the applicant.

Although persons may apply at any time, applicants are encouraged to complete the admissions process as soon as possible. High school students should apply early during their senior year. An application should be on file at least 10 calendar days prior to the beginning of the quarter for which enrollment is planned. A student may not be admitted and/or enrolled in more than one degree, diploma, or certificate program at a time.

Application forms and detailed information about instructional programs may be obtained by writing the Admissions office. The Admissions office is open Mondays through Thursdays from 8:00 a.m. to 7:00 p.m. and Fridays from 8:00 a.m. to 5:00 p.m. Appointments may be made by calling (919) 598-9224 or writing:
Admissions Office
Durham Technical Community College
1637 Lawson Street
Durham, North Carolina 27703-5023.

Admission Procedure

Application

Applicants should submit a completed application to the Admissions office for the quarter in which they wish to enroll. All admission requirements should be completed no later than 10 calendar days prior to the registration date. Early application is recom-

mended to allow adequate time for processing and to increase the opportunity for entry into programs with limited enrollment.

Transcripts

An official transcript is required from either a high school, an adult high school diploma program, or a general education equivalency diploma program. Postsecondary educational transcripts are required from all students desiring transfer credit. In addition, students applying for veterans benefits must have all transcripts on file in order to be certified for benefits. All transcripts become the property of Durham Technical Community College and will not be released to students. Applicants who have earned the high school equivalency diploma should write:

State GED Administrator
Department of Community Colleges
Raleigh, North Carolina 27611

and request that a transcript certifying high school equivalency be forwarded to the Admissions office.

Placement Testing

Applicants may be required to take a series of placement examinations. Test results are used in helping prospective students assess their aptitudes and achievements in relation to their interests and desires. This information provides an educational basis for placing individuals in appropriate courses. Minimum scores are required for acceptance into certain programs of study. Applicants will be scheduled for testing when they submit their applications. If an applicant cannot come to Durham for testing, it is possible to have tests mailed. To do so, the applicant must have a high school or college counselor write to the Admissions office. The letter must be on official letterhead and must state that the counselor will administer the tests and return all testing materials. Applicants unable to keep an appointment for testing should notify the Admissions office immediately to make another appointment.

Counseling Conference

After initial admission requirements and placement tests are completed, a counseling conference is available upon request. The conference may involve discussing and analyzing the applicant's proposed curriculum choice in relation to educational preparation, test scores, health factors, work experience, interests, and career objectives. Applicants unable to keep a conference appointment should notify the Admissions office immediately to arrange another appointment.

Acceptance

Each applicant is notified in writing of acceptance into a program of study.

Developmental Studies

The Developmental Studies program, which is the "open door"

for admission to Durham Tech, assists students who seek admission to the College's degree and diploma programs but find themselves underprepared for college-level work. Developmental Studies provides these students with a preparatory program in academic skills to enable them to enter their chosen curriculum with a good probability of success.

Students who apply for two-year arts, science, or technical degrees or one-year diploma programs are required to take placement tests in reading, mathematics, and writing. Any applicant whose placement tests scores fall below the required minimum established by the College is referred to Developmental Studies for indicated course work. These courses must be taken prior to, or in some cases concurrently, with designated curriculum courses.

Developmental Studies courses are available to anyone who wishes to improve his or her basic skills. These courses provide opportunities for improvement in the areas of English grammar and composition, mathematics, and reading, as well as enrichment in study skills and personal and career development. These courses are designed to provide Durham Tech students with the ability to build a firm academic foundation for success in college and beyond.

Admission and Registration Requirements

Basic Admission Requirements

The basic admission requirement for any curriculum program is a high school diploma or equivalent. Certain curriculum programs have limited capacity, and early application is required to be considered for admission. Due to their specialized nature, additional requirements are necessary for the following programs.

College Transfer Program

All students who wish to enroll in courses in the College Transfer program will need to complete an application form.

Students who wish to be officially accepted into the College Transfer program must submit official transcripts from high school or GED test scores and college transcripts when applicable. Students may be asked to take admissions tests in English, reading, and/or math.

Enrollment of special students in College Transfer courses is determined on an individual basis, following a brief interview to determine academic preparation. (Special students are persons who have not been admitted officially to a program of study offered by Durham Tech. See page 11 for more information about special students.)

Students currently enrolled in another college but who are interested in taking College Transfer courses at Durham Tech may do so by providing specific written permission from the academic

deans of their respective schools.

Associate Degree Nursing and Practical Nursing

All nursing applicants are required to have complete physical examinations. Applicants must also submit physicians' statements verifying that the applicants do not have any physical or mental diseases which could impair their ability to perform duties in health-related fields.

Practical Nursing applicants must demonstrate academic readiness by meeting minimum established criteria on language skills and math placement tests.

Associate Degree Nursing applicants must demonstrate academic readiness by meeting established criteria on language skills and mathematics placement tests. In addition, applicants must have successfully completed one year of high school algebra and one year of chemistry or college-level algebra and chemistry courses. These courses may be completed at Durham Tech prior to admission to the Associate Degree Nursing program.

Dental Laboratory Technology

Dental Laboratory Technology requires eye-hand coordination and manual dexterity. All applicants are given a wax carving test.

Early Childhood Associate

Early Childhood Associate applicants are required to have complete physical examinations. Written releases for police record checks are also required for admission into the practicum courses for this program.

Pharmacy Technology

Pharmacy Technology applicants are required to have complete physical examinations. Written releases for police record checks are also required for admission.

Respiratory Care

Respiratory Care Technician and Respiratory Care Technology applicants are required to have complete physical examinations. Written releases for police record checks are also required for admission.

Mathematics Skills

All students entering degree or diploma programs at Durham Technical Community College need general mathematics skills which include arithmetic operations with integers, fractions (including mixed numbers and decimal numbers), percent and percentage problems, and signed numbers.

It is essential that *Electronics Engineering Technology* and *Microelectronics Technology* students have mathematics skills sufficient to cope with engineering technology courses. Students entering these programs are expected to have completed Algebra I or an equivalent course in high school. Applicants for these programs

are tested prior to entering their first math course to determine proficiencies in basic algebra.

Students entering the *Opticianry*, *Respiratory Care*, and *Dental Laboratory Technology* programs are expected to be proficient in general mathematics and will also find skills in basic algebra very helpful.

Necessary mathematics skills may be acquired at Durham Technical Community College by enrolling in a preparatory mathematics course or by enrolling in the Curriculum/Telecourse Center. (For more information about the center, see page 25.)

Special Students

Students interested in taking only a limited number of courses may, in many curriculum programs, enroll as special students and do not need to apply for admission. Special student advisers are available to assist students in completing their paperwork for registration. Special students are not eligible to be considered for course substitution, credit by examination, financial aid, or veterans benefits, and they do not qualify for academic recognition by being named on the President's List or Dean's List. Special students intending to complete a program of study at Durham Tech should apply for admission as early as possible to avoid losing any credits for classes taken. Also, when special students apply for admission, they must meet all admission requirements in effect when they apply.

Late Applicants

Students applying for a program too late to secure all supporting documents required for admission may take courses in general education, public service, business, industrial and engineering programs as special students; however, courses in other programs are generally available to special students only on a very limited basis.

Students applying for a program too late for admission for the desired quarter should complete another application requesting admission for a subsequent quarter.

International Students

According to P.L. 87-195, *this school is authorized under federal law to enroll nonimmigrant alien students*. Students enrolling under this classification are treated as nonresidents with respect to tuition and fees, and they cannot be classified as residents.

Immigrant aliens are subject to the same considerations as citizens and may establish North Carolina residence in the same manner as other nonresidents.

All international student applicants must come to the campus for personal interviews and placement testing before they can be accepted and before the international student adviser can issue the Certificate of Eligibility (I-20). Tests cannot be mailed outside the United States to prospective international students. International students are also required to submit documentation of prior educational experience equivalent to high school graduation and documentation of previous college-level coursework for evaluation

of transfer credit.

All international applicants must also submit evidence of adequate financial resources to support themselves throughout their educational programs. Durham Technical Community College cannot provide financial aid to international students.

Readmission

Any student who withdraws from Durham Tech for as long as two quarters or any student who changes programs of study at any time must apply to the Admissions office for readmission. Readmission conditions depend on individual circumstances, but generally a student is eligible to return when an appropriate course schedule can be arranged. Readmitted students must complete the requirements for graduation under the plan of study in effect at the time of readmission.

Students wishing to change curriculum programs must apply for their new program by the eighth week of the quarter before the change is to be effective.

Any student financially indebted to the College by failure to meet any outstanding debt such as tuition, bookstore, library, activity, uniform, graduation, promissory note, equipment or supplies debt, or by failure to make any required payment to the College will not receive a transcript until such indebtedness is settled.

Advisement and Registration

Quarterly class schedules are issued by Academic Services. Prior to registering, all students are required to go through a prescribed advising process to ensure all course requirements are met prior to graduation. Returning students may register early each quarter. To register for courses, all students must receive approval of the academic adviser, receive approval of the Registration office, and pay tuition and fees to the Business office. Students receiving veterans educational benefits also must receive approval of the Veterans Affairs office before paying at the Business office.

Transfer Credit

Transfer students applying for admission to Durham Technical Community College must meet all admissions requirements for their chosen program. However, in some programs, placement testing may be waived based on prior completion of math or English courses. Students should consult an admissions counselor regarding transfer admission and transfer credit before taking the placement test or enrolling in courses. Durham Technical Community College accepts transfer credit for equivalent courses with the grade of C or better from member institutions of the North Carolina community college system and other postsecondary institutions accredited by agencies affiliated with the Council on Postsecondary Accreditation. Also, transfer credit may be granted for certain general education courses not offered by Durham Technical Community College. Persons who have been enrolled in any postsecondary institution are required to submit official transcripts of previous academic work to Durham Tech when applying to programs of

study if an evaluation of transfer credit is desired. When transfer credit is in question, the student may be asked for supporting documentation (course description or a course syllabus).

A student transferring from another institution must complete at least one-fourth of the total credit hours required while enrolled at Durham Technical Community College to be eligible for graduation. Credit transferred from another institution is not used in calculating the student's grade point average for academic progress and graduation.

When a student transfers from one program of study to another within Durham Technical Community College, all academic requirements, including grading policies of the new program, must be met for graduation. Upon transfer to the new program, all courses which are commonly required by more than one program will be transferred with the prior achieved grade. The decision to transfer or repeat these courses should be made upon admission to the new program of study.

After a student has been admitted to a program of study, approved courses may be taken at another accredited institution for transfer to Durham Technical Community College with prior permission from the department dean. Courses transferred would be accepted as satisfying the appropriate comparable course requirements in the student's program of study.

Changes of Schedule

Students must obtain drop/add forms from the Registration office. Registration change dates are set for specific times by the Admissions and Registration Department. Class additions are not permitted after the designated change date.

Grade Reports

Grade reports are mailed at the conclusion of each quarter. The quarter-hour credits earned are reported and the grade point average for the quarter is included.

Requirements for Graduation

To be eligible for graduation, students must complete all the courses required by the plan of study under which they were admitted with a minimum grade point average of 2.0 (C). Any outstanding obligations to the Business office and the library must also be settled to be eligible for graduation.

Students should apply for their degree, diploma, or certificate two quarters prior to their anticipated date of graduation. For example, students planning to graduate at the end of the spring quarter should apply for graduation when they register for the winter quarter.

When applying for graduation, candidates pay a \$7.50 graduation fee to cover the cost of the diploma and cover. No refunds are possible after the diplomas have been ordered. Students must apply for graduation to have completion information recorded on their transcripts. A commencement exercise is held annually, and caps and gowns are ordered through the Admissions and Regis-

tration Department.

A student transferring from another institution must complete at least one-fourth of the total credit hours required (excluding credit by examination) while enrolled at Durham Technical Community College in order to be eligible for graduation. Courses included in the graduation grade point average are limited to those required by the plan of study and completed at Durham Tech.

Transcripts

Official transcripts of scholastic records showing attendance at Durham Technical Community College are issued by the Student Records office upon a student's written request or signed release form. Students must provide identification and pay a charge of \$1 for each official transcript. Telephone requests cannot be accepted because of the difficulty in verifying the requestor's identity. Students may come in person or write a letter in which they include the name or names under which they attended, their signature, their social security number, and the years they attended. Students may be denied transcript service for indebtedness to the College.

With proper identification, unofficial student copies of Durham Tech transcripts are provided upon request at no charge to students. Transcripts from other schools which Durham Tech has on file are not released.

There is no charge to students for Adult High School transcripts.

Name, Address, or Social Security Change

The Admissions and Registration Department must be notified immediately of any change in name, address, or social security number.

Withdrawal Regulations

Students withdrawing from the College must officially withdraw through the Admissions and Registration Department.

Students planning to withdraw should first discuss their plans with their faculty adviser and counselors and then contact the Registration office where an official withdrawal form can be obtained. The form must be signed by the instructor and then returned to the Registration office.

Students may officially withdraw from one or all courses during the first 10 calendar days of each quarter without the enrollment being shown on the transcript. Until the last two weeks of the quarter, students may withdraw voluntarily or be dropped by instructors for lack of attendance and receive a grade of *W*. Students withdrawing from class during the last two weeks of the quarter will receive a grade other than *W*. No points are earned for the grade of *W*. *Students in the College Transfer program who do not officially withdraw or drop will receive a grade of F for the course.*

Family Educational Rights and Privacy Act

In compliance with the Family Educational Rights and Privacy Act of 1974, Durham Technical Community College releases no personal identification information about a student without the student's written consent. Exceptions to this practice are those types of information defined by law as "directory information." At Durham Tech this includes the student's name; program of study; dates of enrollment; number of credit hours; degrees, diplomas, or certificates awarded; release of academic recognition to newspapers; and participation on officially recognized activities. Student addresses, phone numbers, and class schedules generally are not released.

Directory information may be published or made available without the student's consent; however, any student preferring that such information not be released may request this in writing to the director of Admissions and Registration. This written request must be made during the first two weeks of the student's initial enrollment.

Students may have access to their educational records upon request to the Student Records office. Requests for hearing concerning amendments to the records are to be made in writing to the director of Admissions and Registration.

Tuition, Fees, and Parking Requirements

Tuition and Fees for Curriculum Students

All tuition and fees are due and payable at the Business office on the official days of registration. Partial payments or credits are not accepted. No payment or tuition deposit is necessary prior to the official registration period.

No part of a check made payable to Durham Tech will be given to a student except at the written request of the person making the remittance, and the written request must be mailed directly to the business manager.

Tuition Fee Basis

Note: The tuition fees shown here were in effect for the 1990-1991 academic year. At the time this catalog was printed, the North Carolina General Assembly had not set tuition fees for the 1991-92 academic year. However, a significant increase was anticipated.

North Carolina law, General Statute 115D, establishes the community college system's tuition and fees. Tuition charges are for credit hours enrolled. Credit hours are comprised as follows: one class hour equals one credit hour; two laboratory hours equal one credit hour; three shop hours equal one credit hour. The \$8.75 (in-state)/\$81.75 (out of state) per credit hour tuition rate applies to all regularly enrolled students.

Tuition for Legal Residents of North Carolina

Legal residents of North Carolina enrolled for 12 or more credit hours are charged a maximum tuition fee of \$105 per quarter. Resident students enrolled for 11 or fewer credit hours per quarter

are charged a part-time student rate of \$8.75 per credit hour enrolled per quarter.

Tuition for Out-of-State Students

Any student whose legal residence is outside North Carolina pays nonresident tuition. Full-time nonresident students enrolled for 12 or more credit hours will be charged a maximum of \$981 per quarter. Tuition for nonresident students enrolled for 11 or fewer credit hours is \$81.75 per credit hour enrolled per quarter. Nonresident audit and special students are charged at the same rate as nonresident curriculum students.

North Carolina Residency Status

North Carolina Law, General Statute 116-143.1, requires that *to qualify for in-state tuition, a legal resident must have maintained his domicile in North Carolina for at least the twelve months immediately prior to this classification as a resident for tuition purposes.* The following definition shall be controlled with the interpretation and application of General Statute 116-143.1 as it pertains to the term *domicile*. *Domicile* is one's permanent dwelling place of indefinite duration, as distinguished from a temporary place of abode; and it is synonymous with *legal residence*.

1. Domicile may be established:
 - a. By birth until there is a legally effective change in that domicile;
 - b. By operation of law, as in the case of a minor whose domicile, in most cases, is presumed conclusively to be that of his or her parents; or
 - c. By choice (after legal age is attained); a person may establish his or her domicile in a jurisdiction of his or her choice.
2. One always has a domicile.
3. One retains a given domicile until it is abandoned and another is established.
4. One never has more than one domicile at a given time.
5. Establishing a domicile by choice requires the overt act of establishing physical residential presence in North Carolina while concurrently maintaining the intent to make one's permanent home of indefinite duration.
6. A foreign student who has either an F-1 or J-2 visa *cannot* be classified as a resident for tuition purposes.
7. The requisite domiciliary intent is tested by evaluating relevant, objectively verifiable conduct which is held to constitute a manifestation of the state of mind of the actor.
8. Any question concerning North Carolina residency should be directed to the Admissions office.

Tuition for Senior Citizens

North Carolina residents 65 years of age and older will be charged curriculum tuition and extension registration fees in accordance with applicable state legislative statutes.

Student Administrative Fee

General Statute 115D provides that a fee of up to \$28 per academic

year per student (\$7 per four quarters or \$9 per three quarters) may be established as a student administrative fee. The Student Advisory Council of Durham Technical Community College has approved a 50-cents-per-credit-hour student administrative fee (to a maximum of \$6) per quarter for curriculum students. This fee is used for cookouts, socials, clubs, senior college days, job fairs, supplies, and other activities the Student Advisory Council so determines. The amount of the student administrative fee is subject to change.

Graduation Fee

A \$7.50 fee, which is subject to change, is payable at the time students apply for graduation and includes the cost of the degree, diploma or certificate; the document cover; and any necessary postage. Students should pay the fee during registration two quarters prior to the anticipated completion date. Students must apply for graduation in order to have completion information recorded on their transcript.

Caps and Gowns Fee

Graduating students will be measured for caps and gowns at an announced date early in the spring quarter. The \$15 fee, which is due when students are measured, is subject to change.



Refund Policy

A tuition refund for a student shall not be made unless the student is, in the judgment of the College, compelled to withdraw from classes for unavoidable reasons. In such a case, two-thirds of the student's tuition may be refunded if the student withdraws within the first 10 calendar days. Tuition refunds are not considered after this time. Tuition refunds are also not considered for tuitions of \$5 or less unless a course or program is cancelled or dropped due to no fault of the student.

Non-refundable fees include the student administrative fee, insurance premium fee, graduation fee, and word processing and computer programming fee.

Tuition deferment may be granted to a student who plans to attend Durham Tech during the subsequent quarter (provided it falls within the same academic year). However, deferments must be requested within the first 10 calendar days of the quarter.

Requests for deferment and requests for refunds must be made by the student to the Admissions and Registration Department. Students requesting a tuition refund or deferment must take their registration receipt and their drop/add form to the Registration office.

Books and Supplies

Most of the student's necessary textbooks, supplies, instruments, and materials may be purchased from the on-campus bookstore. The total cost for books and supplies varies with each program; however, most students should anticipate spending approximately \$70 per quarter for necessary texts and materials. Students should attend each class at least once before attempting to purchase texts and materials. Programs in health technologies, nursing, drafting, and automotive mechanics require special items and/or instructional kits.

Accident Insurance

Students may purchase insurance coverage for expenses incurred as a result of accidents which occur while participating in school activities. This is for group coverage beginning in September and ending in August of each year. The insurance charge is optional and is available during registration of any quarter. Regardless of when purchased, the coverage period ends in August of each year. The insurance charge is not refundable.

Students, especially those in Automotive Mechanics, Dental Laboratory Technology, Electronics Engineering Technology, Industrial Electricity/Motors and Controls, Residential Carpentry and Preservation, and Respiratory Care, are encouraged to take advantage of this coverage. Those students taking laboratory classes in chemistry, physics, and machine shop and those engaged in intramural sports activities and work study programs are also encouraged to take advantage of this insurance coverage.

Neither Durham Technical Community College nor the state of North Carolina carries insurance coverage for students' accidents and other needs.

Malpractice Insurance

Students enrolling in nursing and other health programs which require clinical or patient care instruction must purchase malpractice insurance. Coverage on a group plan is available at an annual rate of \$13.25. This rate may vary from year to year.

Health Insurance

Through Durham Tech, students may purchase from an independent carrier health insurance that covers accidents and sickness. Durham Tech can provide students with the necessary forms. The insurance can be purchased for the student, spouse, and/or eligible dependents. Any registered full-time or part-time student is eligible to enroll. Terms of coverage and premium costs vary depending on the options the student selects.

Students enrolling in nursing and other health programs may be required to maintain health insurance coverage. Students who need to meet this requirement are encouraged to take advantage of this insurance coverage.

Additional Expenses

Students in certain programs have additional expenses such as instructional kits and gold for Dental Laboratory Technology, drafting kits for Architectural Drafting, instructional kits for Opticianry, tools for Automotive Mechanics and Industrial Electricity/Motors and Controls, and uniforms and stethoscope for Respiratory Care. Lab coats and other miscellaneous supplies may also be required in some programs. Certain health programs require professional liability insurance. Students enrolled in word processing and selected computer programming courses pay an additional fee of \$7 each quarter.

Transcript Fee

A \$1 fee is charged for all official transcript copies.

Continuing Education Registration Fee

The registration fee for continuing education courses varies according to the type of courses offered.

Parking Requirements

Students are required to display parking decals on vehicles parked on the Durham Tech campus. Parking decals may be obtained in the Business office during regular operating hours. Vehicles on campus without up-to-date parking decals are subject to parking violation fines and may be towed from the campus. Decals are not transferable from one vehicle to another.

Financial Aid

Financial aid awarded by Durham Technical Community College is based on student need. All students receiving financial aid must maintain satisfactory progress in their course of study. The Financial

Aid office is located in the Admissions and Registration Department.

Grants

Pell Grant

A student may be eligible for this federal grant if he or she:

1. is enrolled at least half time (6 credit hours),
2. is in an eligible curriculum program,
3. is a U.S. citizen or eligible noncitizen,
4. shows financial need according to the Pell Grant formula, and
5. does not have a bachelor's degree.

Before receiving any Pell Grant funds, all students must give the Financial Aid office acceptable verification of all taxable and non-taxable income.

N.C. Student Incentive Grant

This grant is funded through both federal and state allocations and is limited to full-time students demonstrating substantial financial need. It is not available for the summer quarter.

College Work Study

A limited number of eligible students showing financial needs, as determined by the ACT needs analysis system, may be employed on campus an average of 15 hours per week at the minimum wage salary.

Scholarships

The following list reflects some of the scholarships available to students enrolled at Durham Technical Community College. More complete information about scholarships and application procedures is available from the Financial Aid office.

The American Fund for Dental Health offers scholarships for Dental Laboratory Technology students. Annual awards range from \$500 to \$650.

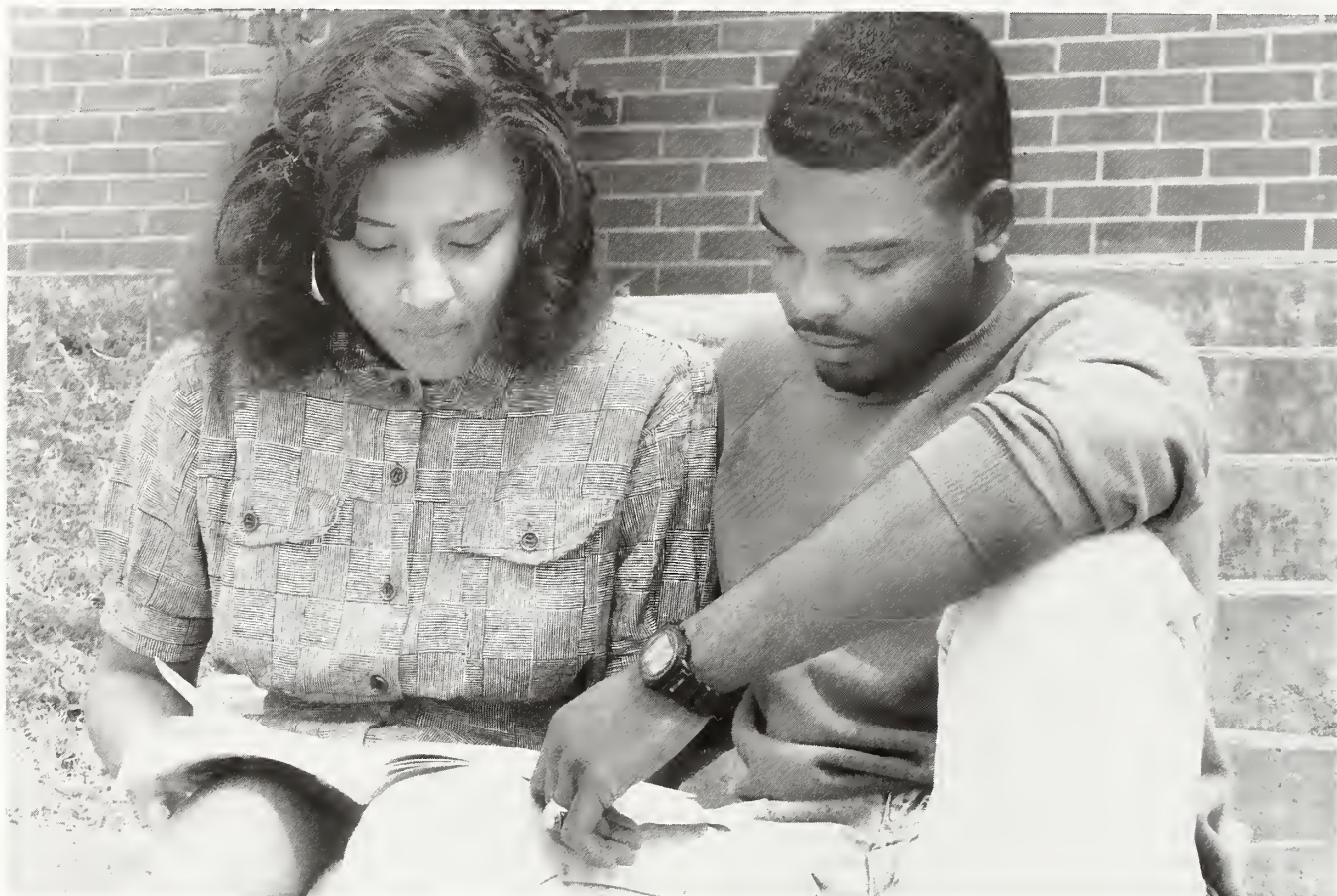
The Central Carolina Bank Scholarships are awarded to second-year degree students and are based upon financial need and academic performance. The scholarships are valued at \$500.

The H.K. Collins Scholarship was established in honor of H.K. Collins, first president of Durham Tech. The scholarships are awarded to second-year technical students and are determined by financial need and academic performance.

The North Carolina Department of Veterans Affairs sponsors scholarships for children of certain disabled or deceased veterans. Awards are based on high school scholastic performance and financial need.

The Wachovia Technical Scholarships were established in 1981 by the Wachovia Bank and Trust Company. These scholarships are given to second-year technical students who have been selected on the bases of need, scholastic promise, and prior academic performance. The scholarships are valued at \$500.

The Durham Technical Community College Student Development Scholarship provides financial assistance to Durham Tech



students. Scholarships are awarded quarterly, and the number of awards made varies from quarter to quarter.

North Carolina Community College Scholarships were established in 1984 by the State Board of Community Colleges. These scholarships are given to needy full-time or half-time students. Scholarships are valued at \$400 per year. This equates to \$100 per quarter for each recipient.

The College also has endowed scholarships available. These include the Holman Practical Nursing Scholarship, the George W. and Mary H. Newton Scholarship, the Durham County Scholarship, and the Campus Fund Scholarships. Campus Fund Scholarships are funded through donations from Durham Tech faculty and staff.

Additional scholarships may be available at various times. Contact the Financial Aid office for assistance.

Loans

Guaranteed Student Loans

These are low interest loans made by a lender such as a credit union or a bank, a school, or a state agency. The interest rate is eight percent for new borrowers and seven percent for students who have outstanding loans. Students interested in applying for

Guaranteed Student Loans should write:
The College Foundation Inc.,
1307 Glenwood Avenue,
Raleigh, North Carolina 27605
or call:
(919) 821-4771.

Other Sources of Aid

Questions concerning the following financial aid programs should be directed to the appropriate agencies:

1. The North Carolina National Guard pays tuition only for their active members.
2. Vocational Rehabilitation assistance for certain handicapped students is available through the local Division of Vocational Rehabilitation.
3. Job Training Partnership Act (JTPA) funds are provided for qualifying unemployed, underemployed, or disadvantaged students in selected occupational programs.
4. Veterans educational benefits may be available to certain veterans. The Veterans Affairs office is located in the Admissions and Registration Department.

Satisfactory Progress for Financial Aid

Students receiving financial aid must maintain satisfactory academic progress by completing a minimum of six credit hours with a grade point average of 2.0 (C) each quarter. Standards of satisfactory progress are found in the *Student Financial Aid Handbook*, available from the Financial Aid office.

Students falling below these stated acceptable criteria may continue to be enrolled in school but may not be eligible to receive financial aid until they have achieved and maintained satisfactory progress for one quarter.

Veterans Information

Veterans Educational Benefits

The Veterans Affairs office assists students who are eligible for veterans educational benefits and certifies their enrollment. This includes veterans, active duty personnel, and students in selected reserves and the National Guard. Eligible students may be certified in the Adult High School Diploma or High School Equivalency (GED) programs or in programs which lead to a degree, diploma, or certificate.

To be eligible for educational benefits, students must be admitted to a curriculum program, and have their high school transcripts and all college transcripts on file at Durham Tech.

Each quarter, students are to have their class schedules approved by their academic adviser, then the Veterans Affairs office before paying tuition and fees. Two copies of the registration receipt should be requested from the Business office and the pink copy should be taken to the Veterans Affairs office for certification purposes.

A *Veterans Handbook* is available for each student in the Veterans Affairs office. The handbook includes detailed information concerning school procedures and educational benefits.

Standards of Progress, Attendance, and Conduct for Veterans

Public Law 95-508 requires that each educational institution approved for veterans to receive educational benefits (G.I. Bill) must establish written policies which clearly state what is expected of a veteran in the areas of academic progress, class attendance, and conduct.

Standards of Academic Progress for Students Receiving Veterans Educational Benefits

The following standards of academic progress are reviewed quarterly for all students receiving veterans educational benefits:

1. Warning/Unsatisfactory Progress — received cumulative total of two Fs (IRs under previous grade system) and/or below a grade point average of 2.0 (C) for one quarter. Students are referred to Counseling Services for academic counseling.

2. Probation/Unsatisfactory Progress — received cumulative total of four Fs (IRs under previous grade system) and/or below a grade point average of 2.0 (C) for two quarters. Students may continue in their curriculum with benefits only if they follow the recommendations of Counseling Services. After two consecutive quarters on probation during which no additional Fs are received, students will no longer be on probation and counseling will not be mandatory; however, students will remain at the step two level.
3. Suspension/Unsatisfactory Progress — received cumulative total of six Fs (IRs under previous grade system) and/or below a grade point average of 2.0 (C) for four quarters. Students are not eligible for benefits for one quarter but may continue in school at their own expense. Students may change their program of study if the Veterans Administration accepts the change as suitable to their abilities. However, Fs received in courses which would have been transferable into the new program of study will be counted in the re-evaluation of the student's standards of academic progress.
4. Reinstatement — after absence of one quarter. Students may re-enter on step two if the problem which caused their academic difficulty has been resolved. Students who continue in school without veterans educational benefits are ordinarily not candidates for reinstatement if F grades are received. A second reinstatement may be considered for certification only after the student has received counseling from the Veterans Administration in Winston-Salem.

Attendance Requirements for Veterans

All students are expected to pursue good faith attendance which limits absences to 15 percent or less of the total contact hours required in the class for the quarter. When a student receiving veterans educational benefits must drop a class, the student is to notify the Veterans Affairs office immediately. Faculty members are to report the student's last day of attendance, and this information is forwarded to the regional Veterans Administration office. Certification will cease being effective as of the first day of the quarter for dropped courses.

Students in a certificate or diploma program are required to turn in attendance reports on the last day of each month. The Veterans Administration will terminate benefits if attendance is not reported. Falsification of attendance reports may result in the termination of benefits and/or dismissal from school.

Procedure for Determining Conduct for Veterans

Conduct requirements are the same for veteran and non-veteran students. Veterans whose benefits are terminated for either unsatisfactory progress, lack of attendance, or misconduct must have counseling before they can be recertified for educational benefits. The required counseling sessions may delay the reinstatement of benefits from two to four months.

Academic Information

This section covers Durham Technical Community College academic policies effective at the time of this catalog's publication in May 1991. These policies apply to all students enrolled for credit instruction, excluding persons registered for continuing education classes, and supercede all previously published academic documents issued by the College.

Under special conditions, these policies may be modified according to procedures approved by the chief academic officer.

The policies do not attempt to cover standards or requirements prescribed by the Veterans Administration or other institutions, groups, or agencies providing financial aid to Durham Tech students.

Nursing students have special academic policies designed to meet standards and requirements defined by the North Carolina Board of Nursing. Nursing students should refer to the nursing handbooks for specific policies affecting their enrollment at Durham Tech.

Classification of Programs of Study

Durham Technical Community College is authorized by the North Carolina State Board of Community Colleges to award the Associate in Arts degree, Associate in Science degree, Associate in Applied Science degree, and the Associate in General Education degree as well as diplomas and certificates. Requirements for each of these awards follow:

Associate in Arts (A.A.) — Completion of all requirements for the Associate in Arts degree totaling 96 quarter hour credits.

Associate in Science (A.S.) — Completion of all requirements for the Associate in Science degree totaling 96 quarter hour credits.

Associate in Applied Science (A.A.S.) — Completion of all required courses as listed on the specific program plan of study totaling no fewer than 96 quarter hour credits.

Associate in General Education — Completion of all requirements for the Associate in General Education degree totaling 96 quarter hour credits.

Diploma — Completion of all required courses identified on the program plan of study totaling no fewer than 64 quarter hour credits.

Certificate — Completion of all required courses identified on the program plan of study totaling no fewer than 16 quarter hour credits.

Most programs of study require total credit hours in excess of the minimum credit hour requirements indicated here.

Classification of Students

Persons attending Durham Technical Community College are classified as either curriculum or special students and as full-time or part-time students according to the following definitions:

Curriculum Students — Persons who have been admitted to a program of study leading to an associate degree, diploma, or certificate. Curriculum students are eligible to be considered for course substitutions or credit by examination and qualify for academic recognition. They may also benefit from other academic options offered by the College, unless restricted from doing so by the program in which they are enrolled.

Special Students — Persons who have not been admitted to a program of study offered by the College and, therefore, are not officially pursuing a degree, diploma, or certificate. Special students are not eligible to be considered for course substitutions or credit by examination and do not qualify for academic recognition.

It is strongly recommended that special students intending to complete a program of study at Durham Tech not proceed beyond one quarter of full-time study or 12 credits as special students before applying for admission in order to avoid the possibility of losing credits and being subject to other penalties or disadvantages which may occur in the interim.

Whenever special students apply for admission, they must meet all admissions requirements in effect at that time.

Full-Time Students — Persons who have registered for a minimum of 12 credit hours for the quarter.

Part-Time Students — Persons who have registered for fewer than 12 credit hours for the quarter.

Plan of Study

A student admitted to a degree, diploma, or certificate program must meet the requirements listed on the curriculum's plan of study for the academic year during which the student was accepted.

The sequence of courses outlined in a program's plan of study is based on fall quarter admittance unless otherwise indicated. Students enrolling at a time other than that indicated should work closely with their adviser to plan their course sequence. In general, the student should follow the sequence of courses listed on the plan of study in order to meet all course prerequisites and to complete the program in the allotted time frame. Otherwise, it may be necessary for the student to extend the period of enrollment to satisfy all requirements for graduation. Graduation is based on the plan of study in effect on the date the student is admitted to the program. A student not enrolled for two consecutive quarters must be readmitted to the program and must follow the plan of study in effect at the time of readmission.

Quarterly course loads for full-time students are established by the list of courses on the student's plan of study.

Only courses listed on the student's plan of study and officially approved substitute courses count toward graduation.

If a course required by the student's plan of study is not passed, the course must be made up or repeated as required, and a passing grade must be earned for the student to be eligible for graduation.

A student may not be admitted to and/or enrolled in more than one degree, diploma, or certificate program at a time, without approval of the chief academic officer.

When desiring to change from one curriculum to another, a student must apply for admission to the new program through the Admissions office.

Course Designations — Prefixes and Numbers

All curriculum courses are designated by a three-letter prefix denoting the subject area of the course content.

All technical courses are preceded by a three-number prefix ranging from 100-299. For example, DFT 103 is the designation for "Technical Drawing." These courses are designed to fulfill the requirements for the Associate in Applied Science degree, Associate in General Education degree, and/or a technical specialty diploma and certificate.

All college transfer courses are preceded by a three-number prefix ranging from 151 to 299 in the following areas: English, humanities, social sciences, mathematics, and sciences. For example, HIS 151 is the designation for "Western Civilization I." These courses are designed to fulfill the requirements for the Associate in Arts and Associate in Science degrees.

All vocational courses are preceded by a four-number prefix and are designed to fulfill the requirements for a vocational diploma or certificate. For example, DFT 1103 is the designation for "Architectural Drafting III."

Course Prerequisites

Students are to comply with the regulation that courses may not be taken until all prerequisites have been met. A prerequisite is a course which must be completed before a later course is taken. A corequisite is a course which must be taken while other courses are being taken.

Instructors of courses with prerequisites will determine at the start of the course whether all students have completed the course prerequisites. Students who have not met the prerequisites will be referred to the program director or the department dean for approval to continue in the course.

Course Repeat

A student may not enroll in the same course more than three times without departmental approval. Some Health Technologies programs have a limit of two enrollments.

Credit Hour Calculation

Durham Technical Community College operates on a four-quarter academic calendar. The fall, winter, and spring quarters are each 11 weeks long; the summer quarter is 10 weeks long.

A credit hour at Durham Tech, as required by the North Carolina Administrative Code, is calculated according to the following formula for classroom, laboratory, shop or clinical training, or work experience instruction over the standard 11-week quarter: one hour of classroom instruction per week equals one credit hour; two hours of supervised laboratory instruction per week equal one credit hour; three hours of supervised manipulative laboratory, shop, or clinical practice per week equal one credit hour; and 10 hours of work experience, practicum, or internship per week equal one credit hour.

Course Substitutions

In special circumstances, when it is not feasible for a curriculum student to take a course listed on a plan of study, an appropriate course may be considered for substitution. However, the substituted course must academically enhance the program objectives; and the total credit hours in each category on the plan of study must be satisfied. The substitution will be made on an individual basis and will not apply to all students in a given program. Course substitutions will be made only for courses offered by Durham Technical Community College. Approval for course substitutions must be received prior to registration.

Transfer Credit

Transfer students applying for admission to Durham Technical Community College must meet all admissions requirements for their chosen program. However, in some programs, placement testing may be waived based on prior completion of math or English courses. Students should consult an admissions counselor regarding transfer admission and transfer credit. Durham Technical Community College accepts transfer credit for equivalent courses with the grade of C or better from member institutions of the North Carolina Community College System and other postsecondary institutions accredited by agencies affiliated with the Council on Postsecondary Accreditation. Also, transfer credit may be granted for certain general education courses not offered by Durham Technical Community College. Persons who have been enrolled in any postsecondary institution are required to submit official transcripts of previous academic work to Durham Tech when applying to programs of study if an evaluation of transfer credit is desired. When transfer credit is in question, the student may be asked for supporting documentation (course description or a course syllabus).

A student transferring from another institution must complete at least one-fourth of the total credit hours required for graduation while enrolled at Durham Technical Community College. In addition, at least 12 of the last 24 credit hours toward completion of a degree must be earned at Durham Technical Community Col-

lege. Credit transferred from another institution is not used in calculating the student's grade point average for academic progress and graduation.

When a student transfers from one program of study to another within Durham Technical Community College, all academic requirements including grading policies of the new program must be met for graduation. Upon transfer to the new program, all courses which are commonly required by more than one program will be transferable with the prior achieved grade. The decision to transfer or repeat these courses should be made upon admission to the new program of study.

After a student has been admitted to a program of study, approved courses may be taken at another accredited institution for transfer to Durham Technical Community College with prior permission from the department dean. Courses transferred would be accepted as satisfying the appropriate comparable course requirements in the student's program of study.

Grading System

Durham Technical Community College employs a letter grading system to evaluate the student's performance in meeting the stated objectives of the classroom, laboratory, shop, clinical setting, or work experience.

The following letter grades, numerical equivalents, and grade points are used:

Grade	Numerical Equivalency	Significance	Grade Points Per Quarter Hour
A	93-100	Superior Work	4
B	85-92	Very Good Work	3
C	77-84	Average Work	2
D	70-76	Below Average Work	1
F	Below 70	Unsatisfactory Work—Must Repeat Course	0
I		Incomplete—Makeup Work Required	
IP		In Progress—Must Repeat Developmental Course	
W		Withdrawal or Dropped by Instructor	
AU		Audit	
CE		Credit by Examination	

Explanation of Special Grades

The following special grades are assigned at Durham Tech when a grade of A, B, C, D, or F is not achieved:

I: Incomplete — Makeup Work Required

The special grade of I is assigned when the student has performed at a satisfactory level and has made significant progress toward the completion of course objectives but is unable to complete all prescribed work by the end of the quarter due to extenuating circumstances such as accident, illness, or comparable unavoidable developments. Under normal circumstances, the grade of I will not be assigned to a student who fails to appear for the final examination.

To receive the grade of I, the student must confer with the instructor and request the I grade on or before the last class day of the quarter. The student must also provide the instructor with documentation of the particular circumstances necessitating the I grade. If such circumstances are considered legitimate, the instructor will provide the student with written instructions specifying the work to be completed and the completion deadline.

If the student completes the work according to the instructor's requirements, a grade for that work is assigned and computed in the final course grade. If the course work is not completed during the subsequent quarter, the I grade is changed to an F grade and the student must repeat the course.

In no case may the work be completed later than the conclusion of the following quarter. If the uncompleted course is an essential prerequisite for a subsequent course, the student may be required to remove the I grade within a significantly shorter period of time. Otherwise, the subsequent course must be dropped.

An I grade received during the quarter prior to the quarter of graduation must be removed by the midterm of the quarter in which the student intends to graduate.

IP: In Progress — Must Repeat Developmental Course

The special grade of IP is assigned only to developmental studies courses (EDU 110, ENG 090, ENG 100, ENG 110, MAT 090, MAT 095, MAT 097, RED 090, RED 095, RED 100, RED 110) when the student has not mastered all course competencies. The student must re-register for the course before progressing to the next level of course work.

W: Withdrawal from Course

The special grade of W is assigned when a student officially withdraws or is dropped from a course by the instructor during the first nine weeks of the quarter. After the ninth week, a letter grade will be assigned indicating the student's academic average for the course.

A student may withdraw from a course within the first 10 calendar days of the quarter with no record of the withdrawal shown on the transcript.

To initiate a withdrawal, a student must submit to the Registration office an official drop form which has been signed by the instructor.

A student who has withdrawn or is dropped may request reinstatement subject to the approval of and conditions set by

the instructor. To be reinstated, the student must be in good academic standing and must provide the instructor with evidence of the extenuating circumstances which necessitated the withdrawal or drop.

AU: Course Audit

The special grade of AU is assigned when a student enrolls in and regularly attends a course on a noncredit basis. Enrollment is subject to space availability and the program director's prior approval. The audit student, like the credit student, is subject to Durham Tech's attendance policy. The student may not change from credit-to-audit or audit-to-credit status after the first 10 calendar days of the quarter.

CE: Credit by Examination

The special grade of CE is awarded when a student has applied for and successfully completed the requirements for credit by examination. Qualified curriculum students with relevant prior training or experience may earn academic credit for certain courses by examination. A student interested in receiving such credit should contact the appropriate program director for information on the procedures for application. To receive credit by examination, the student must be enrolled in a curriculum and be registered for the course for which application is made. The application must be approved within the first seven calendar days, and the examination must be completed within the first 14 calendar days of the quarter.

In order to receive credit by examination, the student must score at least 85 percent on the examination. The examination may be taken only once, and a student failing the examination must complete the course for credit. No more than 10 percent of the total credit hours required by the student's plan of study may be earned by examination unless the chief academic officer gives special approval to exceed this limit.

Change of Grade

All change of grade requests are to be submitted on change of grade forms for approval by the chief academic officer. All change of grade requests other than those converting an I grade to a letter grade require written explanations of the reasons for the changes and must be requested within one calendar year after the original grade was assigned.

Grade Point Average

Academic progress at Durham Technical Community College is based on a 4.0, or letter grade of A, cumulative grade point average system. A final grade point average of 2.0, or a C, is required for graduation from all programs of study.

The student accumulates grade points based on grades earned per quarter. The grade point average is determined by dividing grade points earned in courses by the number of quarter credit hours attempted as shown in the following example:

Course	Grade	Credit Hours		Grade Points		Totals
ECO 102	C	3	x	2	=	6
MAT 110	B	5	x	3	=	15
BUS 101	A	5	x	4	=	20
ENG 101	F	3	x	0	=	0
		<u>16</u>				<u>41</u>

$$41 \div 16 = 2.56 \text{ Grade Point Average}$$

Only those courses taken in residence and prescribed by the student's plan of study or officially approved substitute courses are included in calculating the grade point average required for graduation.

A student who earns a grade of D or below on a required course may repeat the same course. In such an instance only the higher grade will be used in calculating the grade point average for graduation. A student may take a different elective course instead of repeating the elective course in which a grade of D or below was earned; however, the credit hours and grade points for both courses will be included in calculating the grade point average for graduation.

No grade points are earned when the special grade of I, IP, W, AU, or CE is received or when credits are transferred to the College.

All grades remain on the student's transcript.

Standards of Progress

Since a minimum of 2.0 is required for graduation, students are urged to maintain at least 2.0 each quarter. Students with either a cumulative or quarter grade point average of less than 2.0 are not considered to be making satisfactory progress. See "Standards for Academic Progress for Students Receiving Veterans Educational Benefits."

A student whose grade point average for any quarter falls below 2.0 should not register for more than 12 credit hours for the following quarter. The student should also consult with the faculty adviser and should receive academic assistance from Counseling Services.

Academic Recognition

Full-time curriculum students who earn a grade point average between 3.25 and 3.74 for the quarter are named to the Dean's List for that quarter.

Full-time curriculum students with a grade point average of 3.75 or above are named to the President's List for the quarter. Students who have earned a grade point average of 4.0 and who participate in commencement exercises are recognized individually at the ceremony.

In addition, academic achievement of students attending Durham Technical Community College is recognized through the

Gamma Beta Phi Society, an honor and service organization for students in two- and four-year colleges and universities in the United States. Gamma Beta Phi Society was chartered at Durham Tech in 1990. Students nominated for membership must be enrolled full- or part-time for at least 12 credit hours toward a degree, certificate, or diploma, and have a grade point average ranking within the top 20 percent of the class.

Full- or part-time students completing their plan of study with a grade point average between 3.25 and 3.74 are graduated with honors while students maintaining a grade point average of 3.75 or above throughout their studies are graduated with high honors.

Student-Instructor Responsibilities

At Durham Technical Community College the student and the instructor are obliged to meet a number of reciprocal responsibilities to each other within the student-teacher relationship.

The student is responsible for: 1) arriving at all classes on time and prepared to participate in assigned work or activities; 2) obtaining assignments from the instructor prior to an absence, whenever possible, so that work may be submitted upon returning; 3) requesting to make up assignments missed due to legitimate absences (make-up assignments will follow procedures stipulated by the instructor at the outset of the course); and 4) seeking instructor assistance when clarification or additional help is needed to complete an assignment.

The College does not permit a student to attend class with a child.

The instructor is responsible for being prepared for each class, starting the class on time, and providing a full period of effective instruction throughout the quarter; providing students with complete information on the objectives and requirements of the courses including the resources available to students outside the classroom or laboratory; maintaining an accurate record of attendance on all students and consulting promptly with students on any attendance problems; and being available to students outside of class in the event additional help is needed in meeting course requirements.

Attendance

Regular attendance is required for the student to complete all course requirements and receive the optimum benefit of instruction. In the event of absence, it is the student's responsibility to make up all missed work in the most timely manner possible. Failure to make up missed work will adversely affect the student's course grade.

There are no excused absences. Regardless of the reasons, when the student accumulates absences totaling 15 percent of the instructional hours of the course, the instructor is authorized to drop the student through the ninth week of the course. In certain Health Technologies programs, if the student exceeds the 15 percent limit after the ninth week, penalty points will be imposed when the student is required to fulfill licensure certification.

Absences are calculated from the first class meeting, not from the student's first attendance date. Hence, students registering late may have already accumulated a portion of the absence limit which varies according to the contact hours of class as shown below:

Class Contact Hours	Absence Limit
33 contact hours	5 hours
44 contact hours	7 hours
55 contact hours	8 hours
66 contact hours	10 hours

Tardiness and Early Departure

The student should be on time for each class session and should be prepared to remain for the full duration of the class. A tardiness or early departure from class that results in the student missing at least 20 percent of the instructional session may be considered an absence. Chronic tardiness and/or leaving class early may adversely affect the student's course grade and may cause the student to be dropped from the course.

Student Conduct

All Durham Technical Community College students are expected to conduct themselves as responsible adults. Participation in any activity which, in the opinion of the administration, disrupts the educational process or functioning of the College may result in disciplinary action, whether it occurs on campus or at any College-sponsored activity. Specific violations of the student code of conduct include the following:

1. Academic dishonesty (cheating and/or plagiarizing);
2. Vandalizing, damaging, destroying, or stealing institutional or private property;
3. Violation of regulations concerning drug and alcohol use, as outlined in the Durham Technical Community College Drug and Alcohol Policy (refer to the next section, "Drug and Alcohol Policy");
4. Possessing or using weapons except for legally authorized use either on campus or at any College-sponsored event;
5. Harrassing and/or assaulting—verbally or physically—an institutional employee, student, or visitor;
6. Violating institutional regulations or policies; and
7. Breaching any federal, state, or local law.

Violations may result in probation, suspension, or expulsion from the College by the president, upon recommendation by the dean of student services and the chief academic officer.

Drug and Alcohol Policy

Problems with substance abuse are extremely complex. Substance abuse on campus can impact the safety and well-being of faculty,

staff, and students. Therefore, it is the policy of Durham Technical Community College that the unlawful manufacture, distribution, dispensation, possession, or use of alcohol or a controlled substance is prohibited on Durham Tech premises, or as part of any College-sponsored activities. Any student violating this policy will be subject to disciplinary action up to and including suspension, expulsion, and referral for prosecution. The specifics of this policy are distributed to students annually. Copies of the policy are available in Counseling Services, Personnel Services, and the Business office.

Academic Honesty

Durham Technical Community College demands complete academic integrity from each student. The following acts of academic dishonesty are specifically prohibited:

1. Academic dishonesty includes, but is not necessarily limited to, unauthorized copying, collaboration or use of notes or books on examinations or other academic exercises, as well as plagiarism, which is defined as the intentional representation of another person's work, words, thoughts, or ideas as one's own.
2. Acquisition by the student of any academic material, such as tests, research papers, and the like, from any member of the student body, staff, or faculty without consent.
3. Furnishing false information with the intent to deceive members of the faculty or administration of the College who are acting in the exercise of their official duties.

Any student who commits any of the acts described above, as well as any other act which constitutes a clear offense against the academic integrity of the College, shall be disciplined in the following manner:

1. In the case of a first offense of academic dishonesty, a grade of zero shall be given on that particular academic exercise in which the act of dishonesty occurred. The fact that the student has received a grade of zero, together with all supporting material evidence, shall be forwarded to the chief academic officer within three (3) working days of the imposition of the penalty.
2. In the case of a second offense of academic dishonesty, the student shall be expelled from the class by the instructor with a grade of F. The instructor shall communicate the fact that the student has been expelled from the class, together with all supporting material evidence, to the academic officer within three (3) working days of the imposition of the penalty.
3. In the case of a third offense of academic dishonesty, the student shall, upon recommendation by the chief academic officer, be expelled by the president for a minimum of one (1) year.
4. In the case of acquisition of any academic material without consent or of furnishing false information, the student shall be referred to the chief academic officer for recommendation of probation, suspension, or expulsion from the College by the president.

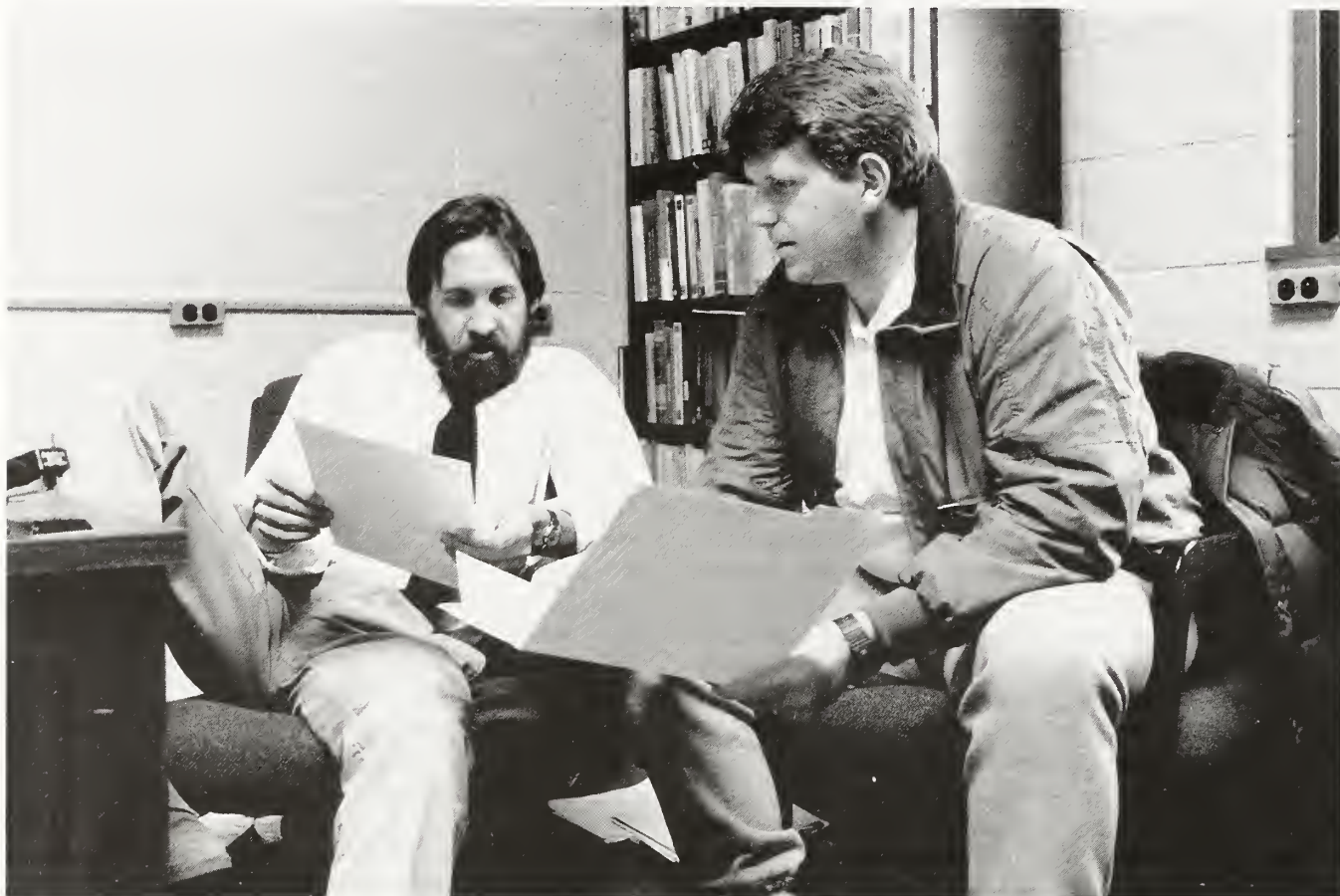
In addition to the penalties described above, any student in the Health Technologies programs who commits any error or offense in the course of clinical studies which, in the opinion of the instructor, compromises the health, safety, or well-being of the patient, shall be expelled immediately from the course. The fact that the student has been expelled, together with all supporting material evidence, shall be communicated to the chief academic officer within three (3) working days of the imposition of the penalty. This additional provision is imposed in recognition of the fact that, in the clinical setting, dishonesty and errors of judgement may carry implications that are more serious and far-reaching than those occurring in the usual academic setting.

If a student wishes to appeal the decision of the instructor in the case of a first or second offense of academic dishonesty, the student shall follow the procedures set forth in the current *Student Handbook* under the section "Student Grievance Procedure: Informal Procedures." In the case of a third offense of academic dishonesty or any other case where the penalty is recommended by the chief academic officer, a student wishing to appeal the decision shall follow the procedures described in the section "Student Grievance Procedure: Formal Procedures."

Student Grievance Procedures

When the student has a grievance or has been charged with inappropriate conduct or academic dishonesty, the student has a right to seek due process. The faculty and staff at Durham Technical Community College attempt, in good faith, to resolve complaints and problems of students. The student grievance procedures are detailed in the *Student Handbook*, which is available in Counseling Services.





Transfer to Senior Colleges and Universities

The following information concerning transfer credit to senior institutions is subject to change without notice. Transferring students should contact the admissions offices at the senior institutions concerning admissions requirements and transfer credits for specific programs of study.

Associate in Arts and Associate in Science

Either the Associate in Arts (A.A.) degree or the Associate in Science (A.S.) degree is awarded for the College Transfer program. The program is fully accredited, and program courses transfer to senior institutions across the United States. A student completing the College Transfer program may, in most cases, transfer

as a junior to a four-year college or university. Faculty in the College Transfer Department can assist students with basic transfer information for universities in the University of North Carolina system.

Associate in Applied Science

The Associate in Applied Science (A.A.S.) degree is awarded for two-year technical programs which focus on preparing the student for the job market. There are senior institutions which accept some of these degrees as the first two years of a four-year program. Other senior institutions will evaluate the Associate in Applied Science degree on a course-by-course basis.

Counseling Services staff members assist students with transfers to other educational institutions. Information about the colleges and universities that offer transfer credit for courses in the Associate in Applied Science degree programs completed at Durham Technical Community College is available in the Counseling Services office.

Services and Special Programs

Career Emphasis Clusters

Career Emphasis Clusters are classes designed to prepare individuals for career advancement in their career fields. The career clusters combine technical training and professional skill development in a specific group of courses. The classes offered in career area clusters vary by quarter. Clusters include such professional areas as real estate, finance, insurance, management, retailing, automated office procedure, chassis/power train servicing, engine servicing, maintenance electrician, construction electrician, and motor control electrician. Students who finish the career clusters must complete an application in the Student Records office to receive a certificate of completion.

Career Planning and Placement Center

The Career Planning and Placement Center is available for prospective and current Durham Tech students and alumni. Students are assisted in developing and clarifying career goals through resource materials, interest inventories, workshops, and individual counseling. The Career Planning and Placement Center serves as an intermediary between students and prospective employers. In addition, the center provides information on job openings and opportunities; maintains placement files for use by employers; assists students with resume writing, interviewing techniques, and job-seeking skills; conducts job fairs; and coordinates placement interviews.

Counseling Services

The goal of Counseling Services at Durham Technical Community College is to promote student growth, development, and academic success. Services are available to all students and prospective students without charge. Counseling Services assists students with program and course selections; interpersonal relationships with friends, instructors, or family; test-taking anxiety; academic difficulties; study skills; and time management.

Students are encouraged to consult with counselors any time they have problems which may affect their educational progress. All discussions are confidential.

The Counseling office is open from 8:00 a.m. to 7:00 p.m. Mondays through Thursdays and 8:00 a.m. to 5:00 p.m. on Fridays.

Curriculum/Telecourse Center

The Curriculum/Telecourse Center provides an educational setting which is an alternative to the more traditional classroom setting. Both self-instructional (individualized) courses and telecourses are offered in the center.

Each quarter a number of credit courses are offered in the center. These courses, taught through the use of self-instructional, self-paced materials and supplemented by one-on-one instruction from center faculty, are offered in several areas including mathematics and psychology. Courses offered for academic credit are listed in the schedule, and students register for these courses

as they do for classroom courses. Tuition is charged.

In addition to the above courses, other courses are offered in the center which are non-credit courses. No tuition is charged. These courses are available to anyone 18 years of age or older and are generally tailored to help students achieve various personal objectives.

The center also offers supplemental instruction in reading and English for developmental students. It houses a microcomputer laboratory which is available to students to supplement their classroom instruction with computer-assisted learning materials.

Educational Resources

Durham Tech's Educational Resources Department includes the library, the Curriculum/Telecourse Center, Developmental Studies, and Media Services.

The library houses more than 30,000 books, films, tapes, magazines, newspapers, and other audiovisual materials, and contains individual and group study areas. Most materials may be checked out for a three-week period. Reference and reserve materials are available for in-library use; staff will assist students in locating and using these and other library materials. Lounge areas are available for reading popular newspapers, magazines, and paperbacks.

To borrow materials from the library, a user must present a valid identification card and obtain a library card at the main desk in the library. A permanent card marked with an expiration date is given to the user, who is responsible for the replacement cost of lost cards.

The library is open from 8:00 a.m. to 9:00 p.m. Mondays through Thursdays, 8:00 a.m. to 5:00 p.m. on Fridays, and 9:00 a.m. to 2:00 p.m. on Saturdays.

International Student Advisement

An adviser to international students is available in Counseling Services. The international applicant, who should possess valid immigration documentation *prior* to being considered for admission, must come to campus for placement testing, must make satisfactory scores on these tests, and must have an interview with the international student adviser. In addition, the applicant must bring an official transcript (in English) of all credits earned at previous educational institutions, and an official document indicating adequate financial support. The visit to campus, placement testing, interview, transcripts, and financial support statement are required before the international student adviser can issue the I-20 or Certificate of Eligibility for the F-1 student visa.

After the student is accepted into a program, the international student adviser or a counselor may assist the international student with registration, monitor the student's academic progress, and offer continuing academic and personal counseling and guidance. The international student adviser also issues other immigration forms and assists the student with immigration matters.

Foreign students on F-1 visas must purchase an approved

medical insurance policy. *Funds used to pay for tuition, books, and other fees must be in a United States bank.*

Services for the Handicapped and Learning Disabled

Durham Technical Community College provides special services and accommodations for students with special needs. Counseling Services coordinates these services. Counselors assist students in the admission process and in registration as needed; provide tutors, notetakers, and interpreters; arrange for taped textbooks and special equipment; make referrals to and work closely with community agencies that serve the handicapped; and provide guidance and counseling. Students with special needs should contact Counseling Services.

Single Parent/Homemaker Program

The Single Parent/Homemaker Program provides services to students who are single parents or displaced homemakers. Any person enrolled at Durham Technical Community College and raising a family without the help of a partner may participate in this program. This program also provides services to any person who has been unemployed because of family responsibilities and is enrolled at Durham Technical Community College to obtain marketable skills to return to the work force.

Juggling academic and household responsibilities, making use of available financial aid, and finding appropriate childcare are common problems faced by the student who is a single parent or displaced homemaker. This program helps with these problems by providing services which include personal and academic counseling, financial assistance, and referrals to community day care facilities.

Student Activities

Durham Tech acknowledges the importance of student life outside the classroom, and supports a variety of social, cultural, and professional opportunities to enhance students' in-class educational experiences. The College encourages participation in student organizations and events, according to each individual's interests. Activities and organizations currently available to students at Durham Tech include:

- Annual Bar-B-Q
- Black History Month/Cultural Heritage Week
- Concerts, plays, and other cultural events
- Career Days
- Senior College Day
- Gamma Beta Phi honor society
- Signature* (student newsletter)
- Literary Club (publishes the student literary magazine)
- Student Ambassadors
- Basketball team
- Softball team

In addition to campus-wide activities and organizations such

as those noted above, student societies are active in a growing number of curriculum programs, including Phi Beta Lambda (business), the Durham/Orange Paralegal Association, the Scholastic Opticians Association, and the Student Nurses Association.

Students who wish to establish a new organization or activity should contact Counseling Services for information on official sponsorship and financial support.





Student Advisory Council

The Student Advisory Council plans and implements student activities and approves and provides support for student clubs. By sponsoring career-related activities like job fairs and senior college days and cultural events such as socials, dances, films, cookouts, and luncheons, the Student Advisory Council strives to provide a vital part of the student's educational experience.

Student initiative, interest, and leadership are necessary for the Student Advisory Council to function effectively; students are encouraged to become actively involved. Additional information about the Student Advisory Council is available through Counseling Services.

Student Ambassador Program

Student Ambassadors are selected from the different program areas to represent the College at special events on campus and in the community. Some of the services provided by this honorary group of students include hosting campus activities, conducting campus tours, speaking to community groups about the College, and assisting with registration and orientation activities. The program is coordinated through Counseling Services.

Tutorial Services

Tutoring is a free service available to all students enrolled in credit courses. Any student experiencing difficulty with a course should

visit Counseling Services and request assistance.

The tutors are currently enrolled students who have been recommended by instructors and trained by the tutorial staff. Because the tutors are students, they can relate to the problems students often encounter when completing a program of study.

Visiting Artist Program

The Visiting Artist Program was initiated in 1971 as a cooperative effort between the North Carolina Arts Council and the North Carolina Department of Community Colleges. Artists are invited by Durham Tech to work in the community for a one- or two-year period.

The most important function of a visiting artist is to supplement, enhance, and promote arts resources in the community. In this capacity, the visiting artist gives lecture-demonstrations, concerts, exhibits, and special programs for public schools, civic clubs, arts councils, and other community organizations.

The artist may also organize and participate in exchange programs with artists from other institutions around the state in order to bring varied artistic talent to a community.

The artist maintains a studio on campus and welcomes visitors. Arrangements for a program or a visit to the studio may be made in advance by contacting the visiting artist at Durham Technical Community College.

Adult and Continuing Education



Durham Technical Community College provides educational opportunities for lifelong learning to adults in the community. Designing courses to meet the needs and interests of adults is the goal of the Adult and Continuing Education Division.

Continuing Education

Short courses, classes, workshops, and seminars are designed to teach occupational training, provide cultural enrichment, and promote personal improvement. Students who successfully complete continuing education courses may be awarded either certificates or continuing education units.

Courses are offered both on a continuing basis and on a requested basis when sufficient interest is determined.

Anyone 18 years of age or older may enroll in continuing education classes. Students between the ages of 16 and 18 may enroll provided they are also enrolled as full-time students in a secondary school.

Classes are held on the Durham Tech campus and at community centers, recreation sites, public school buildings, churches, senior centers, public housing sites, and local businesses throughout Durham and Orange counties.

Registration

Students may register for continuing education courses either through the mail or in the Continuing Education office on the Durham Tech campus. A student may request a mail-in registration form by calling 598-9250.

Fees

Registration fees for continuing education courses range from \$30 and up. The Continuing Education office should be contacted for the exact cost of each course offered. Firemen, policemen, and rescue and lifesaving personnel enrolled in duty-related courses are exempt from paying registration fees. Also, citizens 65 years old and older are exempt from paying registration fees.

Continuing Education Courses

Continuing education courses cover many areas such as General Interest, Health Care Education, and Police and Fire Science Courses. Below are some examples of the courses offered in these areas.

General Interest

Career Planning/Resume Writing
Estate Settlement
Automotive Mechanics
Carpentry
Income Tax Preparation
Spanish
Watercolor
Quilting
Human Relations
Communication Skills
Bookkeeping
Upholstery
Small Engine Repair
Sewing
Electronics
Gourmet Cooking

Health Care Education

Allied Health Continuing Education
Emergency Medical Technician
First Aid and Cardiopulmonary Resuscitation (CPR)
Nursing Assistant
Nurses Continuing Education
Support Courses for Hospital and Nursing Home Employees

Police and Fire Science

Basic Law Enforcement
Basic Fire Science
Customized Classes for City and Volunteer Firefighters
Fire Brigade for Business and Industry

Retired Senior Volunteer Program

Sponsored by Durham Technical Community College, the Retired Senior Volunteer Program (RSVP) provides a variety of opportunities for persons 60 years old and older, so they may continue to make valuable contributions to their communities through volunteer service.

RSVP provides volunteers with free excess liability, accident, and automobile insurance for volunteer assignments and functions. Reimbursement for travel and meals is available on a limited basis.

During the past year, 325 retired senior volunteers found satisfying ways of contributing more than 40,000 hours of service through 50 non-profit and public agencies. The hours contributed enabled the community to extend human services and make Durham a better place in which to live.

Each year RSVP provides volunteers who file federal and state tax returns free of charge for people who cannot afford professional assistance.

Customized Training for Business and Industry

Durham Technical Community College provides customized educational programs and training courses to meet the needs of area companies. Through short workshops and in-depth courses, the Business and Industry staff members help employees at all levels upgrade and sharpen their skills.

Courses are tailored to meet the needs of a company and the training can be provided at the company's facilities or on the Durham Tech campus. Flexible scheduling allows a company to fit training into the employees' workday. Courses may meet for a four-hour session or for up to 17 consecutive weeks at the time and starting date requested by the company. Durham Tech offers continuing education unit (CEU) credit for the customized training courses.

Examples of Business and Industry Training courses available are:

- Supervisor Training
- Time/Stress Management
- Work Simplification
- Secretarial Skills
- Human Relations
- Customized Training for Maintenance, Technical, and Support Personnel
- Basic Math
- Basic Electronics

Focused Industrial Training

Durham Technical Community College's Focused Industrial Training program is directed toward skilled and semi-skilled workers

in industry who need to upgrade their skills and technical knowledge. Training can be customized for a small number of individuals or an occupational group. College representatives can help industry assess needs, plan training strategy, and implement classes, which can be held at the College or in the workplace at a time convenient for both the company and the employee.

Small Business Education Center

The Small Business Education Center is designed to assist entrepreneurs in starting and operating their own businesses. The center provides one-on-one counseling; seminars and workshops; a library stocked with audiovisuals, free information hand-outs, and publications; and training assistance. In addition, the center acts as a clearinghouse and referral service for agencies that provide free or low-cost assistance. Examples of seminars offered through the Small Business Center include:

- The ABCs of Starting Your Own Business
- Writing a Business Plan
- Dealing with Difficult People
- Low-Cost Marketing
- Financing Your Business

Literacy Skills

Durham Technical Community College offers five programs to adults who wish to begin, continue, or expand their educational background. Classes are offered at Durham Tech or at conveniently located sites throughout Durham and Orange counties.

Students may register at the first, second, or third class sessions. Instructors will advise and counsel new students at the first class session attended. Additional information can be obtained by calling the Adult Education office at 598-9226.

English as a Second Language

English as a Second Language is offered to persons 16 years or older whose native language is not English. Ranging from beginning to advanced levels of instruction, the program is designed to accommodate students with varied language proficiencies. Students may take a supplementary program, an intensive language program, or combine English as a Second Language classes concurrently with curriculum courses at the College. No registration fee is charged.

Adult Basic Education

Adult Basic Education provides basic instruction in reading, writing, arithmetic, science, social studies, and consumer education to students who are 16 years old or older. Students using a variety of learning materials are encouraged to progress at their own pace. Upon obtaining an eighth grade competency in reading and math, students are encouraged to enter a high school program. No registration fee is charged.

Adult High School Diploma

The Adult High School Diploma program is offered through a cooperative agreement between Durham Technical Community College and local school systems. The program allows students to complete a high school diploma based on 10 required academic units (4 English, 2 science, 2 history, and 2 math) and successful completion of the North Carolina Competency Test. Students who live in Durham city or county school districts must be 21 years old to enroll and students who live in Orange County must be 18 years old to enroll in this program. A copy of the student's transcript through the last date of public school attendance is required. No registration fee is charged.

Eligible veterans may be certified by the Veterans Affairs office for 725 hours of laboratory study in preparation for the Adult High School Diploma.

Students who complete the Adult High School Diploma program at Durham Tech may obtain official copies of their transcript through the Student Records office.

High School Equivalency (GED)

The High School Equivalency program allows students to complete high school by successfully completing the General Education Development (GED) test. Students prepare for testing in English, social studies, science, reading, and mathematics. Those who pass the test are awarded the High School Diploma Equivalency. Appointments to take the test can be made by contacting the GED Testing Center. No registration fee is charged for the High School Equivalency program; however, a fee of \$7.50 is charged to take the GED test. Students may take the GED test at Durham Technical Community College or at any of the testing sites throughout the state.

Official copies of the GED transcript are available through the GED office at the Department of Community Colleges in Raleigh.

Compensatory Education

Compensatory education courses are offered to mentally retarded



adults in the areas of language, math, social science, health, consumer education, vocational education, and community living. These courses provide opportunities for these adults to become more independent and self-directing; to benefit from occupational training; and to acquire skills to meet and manage work, community, social, and personal adult responsibilities. Most classes are offered through sheltered workshops or other facilities serving this special population. No registration fee is charged.

Programs of Study



Accounting
Administrative Office Technology
Architectural Drafting
Associate Degree Nursing
Automotive Mechanics
Business Administration
Business Computer Programming
College Transfer
Criminal Justice-Protective Services Technology
Dental Laboratory Technology
Digital Electronic Repair
Early Childhood Associate
Electronics Engineering Technology
Fire Protection Technology
General Education
General Office
Industrial Electricity/Motors and Controls

Industrial Management Technology
Machinist
Medical Office Technology
Microcomputer Systems Technology
Microelectronics Technology
Military Science Technology
Optical Laboratory Mechanics
Opticianry
Paralegal Technology
Pharmacy Technology
Phlebotomy
Practical Nursing
Real Estate Appraisal
Real Estate Technical Specialty
Residential Carpentry and Preservation
Respiratory Care Technician
Respiratory Care Technology

The plans of study for these programs are subject to revision. Students should check with their adviser or program director for up-to-date requirements.

Accounting

Accounting is often considered “the language of business” because business events and transactions are recorded, classified, summarized, and interpreted in terms of money and in accordance with accounting principles and procedures. The three major accounting fields are: governmental accounting, private or industrial accounting, and public accounting.

In their work, accountants must meet and talk with important executives. In addition to communicating clearly and effectively, accountants must also be able to bring difficult problems to a satisfactory conclusion.

The Accounting program is designed to build a solid foundation through the study of accounting principles, theories, and practices with related study in law, finance, management, and data processing operations. Related courses in English, business, and the social sciences are included to augment the accounting skills.

The curriculum is designed to prepare the graduate for an entry-level accounting position such as junior accountant, bookkeeper, accounting clerk, cost clerk, payroll clerk, and related data processing occupations.

With experience and perhaps additional education, an individual will be able to advance to a position such as system accountant, cost accountant, budget accountant, or property accountant.

Accounting classes are offered during the day and in the evenings. Selected courses are also offered on weekends. While students may enroll in this program any quarter, the seven-quarter day and nine-quarter evening sequences of courses shown in the plan of study are based on a full-time student enrolling in the fall quarter. The Associate in Applied Science degree is awarded upon successful completion of the program.

Day Program □ 7 Quarters

		CLASS	HOURS LAB	CREDIT
1				
ACC 120	Accounting I	5	2	6
ECO 102	Microeconomics	3	0	3
EDP 103	Introduction to Microcomputers	3	2	4
ENG 101	Communication Skills	3	0	3
2				
ACC 121	Accounting II	5	2	6
BUS 101	Introduction to Business	5	0	5
MAT 125	Math of Finance	5	0	5
ENG 102	Communication Skills	3	0	3
3				
ACC 122	Accounting III	5	2	6
BUS 115	Business Law: Contracts and Courts	3	0	3
MAT 129	Business Statistics	5	0	5
ENG 103	Communication Skills Technical Elective	3	0	3
4				
BUS 116	Business Law: Negotiable Instruments	3	0	3
EDP 205	Spreadsheet Applications	3	2	4
ENG 120	Technical Report Writing General Education Elective	3	0	3
5				
ACC 222	Intermediate Accounting I	5	2	6
ACC 225	Cost Accounting	3	2	4
ACC 229	Individual Taxes	3	2	4
6				
ACC 223	Intermediate Accounting II	5	2	6
ACC 226	Managerial Accounting	5	2	6
ACC 230	Business Taxes	3	2	4
PSY 110	General Psychology	3	0	3
7				
ACC 227	Accounting Theory	3	2	4
ACC 233	Practical Applications in Accounting	1	4	3
ACC 269	Auditing	3	2	4
ACC 270	Accounting Seminar	1	0	1
Required Courses Credit Hours				107
General Education Elective Credit Hours				3
Technical Elective Credit Hours				3
Total Credit Hours Required for Graduation				113

Evening Program ■ 9 Quarters

		CLASS	HOURS LAB	CREDIT
1				
ACC 120	Accounting I	5	2	6
EDP 103	Introduction to Microcomputers	3	2	4
ENG 101	Communication Skills	3	0	3
2				
ACC 121	Accounting II	5	2	6
MAT 125	Math of Finance	5	0	5
ENG 102	Communication Skills	3	0	3
3				
ACC 122	Accounting III	5	2	6
MAT 129	Business Statistics	5	0	5
ENG 103	Communication Skills	3	0	3
4				
BUS 101	Introduction to Business	5	0	5
BUS 115	Business Law: Contracts and Courts	3	0	3
ENG 120	Technical Report Writing	3	0	3
5				
ACC 229	Individual Taxes	3	2	4
BUS 116	Business Law: Negotiable Instruments	3	0	3
PSY 110	General Psychology	3	0	3
EDP 205	Spreadsheet Applications	3	2	4
6				
ACC 222	Intermediate Accounting I	5	2	6
ACC 225	Cost Accounting	3	2	4
ACC 230	Business Taxes	3	2	4
7				
ACC 223	Intermediate Accounting II	5	2	6
ACC 226	Managerial Accounting	5	2	6
ACC 270	Accounting Seminar	1	0	1
8				
ECO 102	Microeconomics Technical Elective General Education Elective	3	0	3
9				
ACC 227	Accounting Theory	3	2	4
ACC 233	Practical Applications in Accounting	1	4	3
ACC 269	Auditing	3	2	4
Required Courses Credit Hours				107
General Education Elective Credit Hours				3
Technical Elective Credit Hours				3
Total Credit Hours Required for Graduation				113

Note: These suggested sequences of courses are based on a full-time student beginning in the fall quarter. These sequences do not apply to students taking courses other than those listed in the plan of study.

Administrative Office Technology

The demand for better-qualified office personnel in the ever-expanding business, industrial, governmental, and professional markets is becoming more acute. This curriculum prepares students to perform secretarial and administrative support duties in a variety of offices, including those with computerized, automated functions.

The curriculum offers courses in typewriting, shorthand, word processing, office procedures, and business correspondence. Training is also provided in analyzing and coordinating office duties and systems. Skills and knowledge are taught in the areas of elec-

tronic document storage and retrieval, and computer software utilization.

Special studies of office technology subjects are supplemented by related courses in English, mathematics, accounting, business, and professional development.

An Associate in Applied Science degree is awarded to graduates of this program. While students may enroll in this program any quarter, the six-quarter day and nine-quarter evening sequences of courses shown in the plan of study are based on a full-time student enrolling in the fall quarter.

Day Program ☐ 6 Quarters

		HOURS		
		CLASS	LAB	CREDIT
1				
SEC 101	Typewriting I	2	3	3
SEC 109	Professional Development	3	0	3
BUS 101	Introduction to Business	5	0	5
MAT 123	College Mathematics	5	0	5
ENG 101	Communication Skills	3	0	3
	Technical Elective			
2				
SEC 102	Typewriting II	2	3	3
SEC 112	Gregg Shorthand I	3	2	4
ACC 120	Accounting I	5	2	6
ENG 102	Communication Skills	3	0	3
	General Education Elective			
3				
SEC 103	Typewriting III	2	3	3
SEC 113	Gregg Shorthand II	3	2	4
SEC 115	Records Management	3	2	4
EDP 103	Introduction to Microcomputers	3	2	4
SPH 120	Voice and Diction	3	0	3
ENG 103	Communication Skills	3	0	3
4				
SEC 114	Gregg Shorthand III	3	2	4
SEC 201	Typewriting IV	2	3	3
SEC 230	Machine Dictation and Transcription	3	2	4
SEC 260	Word Processing I	3	2	4
SOC 110	Principles of Sociology	3	0	3
5				
SEC 204	Simulated Office Application	2	3	3
SEC 261	Word Processing II	3	2	4
SEC 280	Administrative Office Procedures	3	2	4
BUS 271	Office Systems Management	3	0	3
EDP 205	Spreadsheet Applications	3	2	4
6				
SEC 262	Word Processing III	1	4	3
SEC 270	Business Communication	3	0	3
SEC 290	Work Experience	1	20	3
EDP 125	Desktop Publishing	1	4	3
	Technical Elective			
		Required Courses Credit Hours	104	
		General Education Elective Credit Hours	3	
		Technical Electives Credit Hours	6	
		Total Credit Hours Required for Graduation	113	

Evening Program ☒ 9 Quarters

		HOURS		
		CLASS	LAB	CREDIT
1				
SEC 101	Typewriting I	2	3	3
SEC 109	Professional Development	3	0	3
ENG 101	Communication Skills	3	0	3
2				
SEC 102	Typewriting II	2	3	3
SEC 112	Gregg Shorthand I	3	2	4
BUS 101	Introduction to Business	5	0	5
MAT 123	College Mathematics	5	0	5
3				
SEC 113	Gregg Shorthand II	3	2	4
ACC 120	Accounting I	5	2	6
ENG 102	Communication Skills	3	0	3
4				
SEC 103	Typewriting III	2	3	3
SEC 114	Gregg Shorthand III	3	2	4
ENG 103	Communication Skills	3	0	3
	Technical Elective			
5				
SEC 115	Records Management	3	2	4
SEC 201	Typewriting IV	2	3	3
SEC 230	Machine Dictation and Transcription	3	2	4
SPH 120	Voice and Diction	3	0	3
6				
BUS 271	Office Systems Management	3	0	3
EDP 103	Introduction to Microcomputers	3	2	4
SOC 110	Principles of Sociology	3	0	3
	Technical Elective			
7				
SEC 204	Simulated Office Application	2	3	3
SEC 260	Word Processing I	3	2	4
SEC 280	Administrative Office Procedures	3	2	4
EDP 205	Spreadsheet Applications	3	2	4
8				
SEC 261	Word Processing II	3	2	4
SEC 270	Business Communication	3	0	3
	General Education Elective			
9				
SEC 262	Word Processing III	1	4	3
SEC 290	Work Experience	1	20	3
EDP 125	Desktop Publishing	1	4	3
		Required Courses Credit Hours	104	
		General Education Elective Credit Hours	3	
		Technical Electives Credit Hours	6	
		Total Credit Hours Required for Graduation	113	

Note: These suggested sequences of courses are based on a full-time student beginning in the fall quarter. These sequences do not apply to students taking courses other than those listed in the plan of study.

Architectural Drafting



A drafter is a highly skilled person able to take rough sketches or written information and use standard graphic practices to develop working drawings. An architectural drafter not only performs the general duties of a drafter, but also specializes in organizing and making detailed and working drawings of structures and mechanical equipment from preliminary sketches by the architect.

To do this, the architectural drafter uses the fundamentals of engineering practices, mathematics, mechanics, surveying, blueprint interpretations, microcomputer operations, building materials, and other physical sciences to complete the drawings. Thus, the architectural drafter acquires a variety of skills ranging from developing site plans to developing a working knowledge of the local building codes.

The Architectural Drafting program offers a broad range of courses in an intensive and demanding program of study. Emphasis is on the application of drawing skills, mechanical drafting skills, and computer graphics. Related courses in communication skills, mathematics, and physics are included in this program.

Job opportunities for architectural drafters in the Triangle area are excellent, and they are not limited to the architectural field. Many architectural drafters find challenging careers working with architects, designers, contractors, estimators, builders, inspectors, surveyors, planners, technical illustrators, millworkers, engineers, and other professionals in related fields.

Architectural Drafting is a day program. While students may enroll in this program any quarter, the four-quarter sequence of courses shown in the plan of study is based on a full-time

student enrolling in the fall quarter. A diploma in Architectural Drafting is awarded to students who successfully complete the program.

Day Program ☐ 4 Quarters

		HOURS		
		CLASS	LAB	CREDIT
1				
DFT 1101	Architectural Drafting I	3	12	7
DFT 1112	Architectural Materials	3	0	3
EDP 103	Introduction to Microcomputers	3	2	4
MAT 1101	Applied Mathematics	5	0	5
ENG 1101	Communication Skills I	3	0	3
2				
DFT 1102	Architectural Drafting II	3	12	7
DFT 1111	Technical Drafting	3	3	4
MAT 1103	Applied Mathematics	5	0	5
ENG 1102	Communication Skills II	3	0	3
3				
DFT 1103	Architectural Drafting III	3	12	7
DFT 1113	Structural Drafting	3	3	4
DFT 1117	Architectural Estimating	3	0	3
DFT 205	Computer Graphics	2	3	3
PHY 1111	Applied Science	3	2	4
4				
DFT 1104	Architectural Drafting IV	3	12	7
DFT 1114	Technical Illustration	1	3	2
DFT 1115	Surveying for Architectural Drafters	2	3	3
DFT 210	Advanced Computer Graphics	2	3	3

Required Courses Credit Hours 77

Note: This sequence of courses is based on a full-time student beginning in the fall quarter. This sequence does not apply to students taking courses other than those listed in this plan of study.

Associate Degree Nursing



Nursing is a dynamic profession which offers multidimensional opportunities. Registered nurses help people reach their greatest health-wellness potential through prevention of disease, maintenance of health status, recovery from illness or injury, and coping with existing health problems. Nurses coordinate patient care, collaborating with other health care team members to plan, deliver, and evaluate appropriate therapeutic interventions.

The seven-quarter Associate Degree Nursing program provides the knowledge and skills necessary to function effectively in all areas of the profession. The clinical and classroom experiences present an integrated approach in which the student moves from simple to complex nursing skills and concepts. The classroom portion of the program is conducted during the day. Clinical experiences are more flexible, with day and limited evening rotations available. Clinical sites include Duke University Medical Center, Durham County General Hospital, Veterans Administration Medical Center, and John Umstead Hospital.

Individuals seeking admission to the Associate Degree Nursing program must complete the math and chemistry requirements outlined in the Associate Degree Nursing program student handbook. New students may enroll in the fall quarter. Advanced standing students may enroll on a space-available basis.

Approved by the North Carolina Board of Nursing, the Associate Degree Nursing program graduates are eligible to take the National Council Licensure Examination (NCLEX-RN), which is required for practice as a registered nurse. Program graduates are awarded the Associate in Applied Science degree.

Day Program ☐ 7 Quarters

		HOURS			
		CLASS	LAB	CLINICAL	CREDIT
1					
NUR 101	Fundamentals of Nursing	5	4	3	8
NUT 101	Nutrition and Diet Therapy	3	0	0	3
BIO 160	Anatomy and Physiology	4	2	0	5
MAT 131	Integrated College Mathematics	5	0	0	5
EDP 101	Microcomputer Concepts	1	2	0	2
2					
NUR 102	Medical-Surgical Nursing I	6	0	0	6
NUR 103	Medical-Surgical Nursing I-Clinical	0	2	12	5
BIO 161	Advanced Physiology	3	2	0	4
PHM 102	Pharmacology	3	0	0	3
PSY 110	General Psychology	3	0	0	3
3					
NUR 104	Medical-Surgical Nursing II	6	0	0	6
NUR 105	Medical-Surgical Nursing II-Clinical	0	2	12	5
BIO 240	Microbiology	4	2	0	5
PSY 160	Growth and Development Through the Life Span	3	0	0	3
ENG 101	Communication Skills	3	0	0	3
4					
NUR 106	Childbearing Family Nursing	5	0	0	5
NUR 107	Childbearing Family Nursing-Clinical	0	2	12	5
ENG 102	Communication Skills	3	0	0	3
5					
NUR 201	Pediatric Nursing	6	0	0	6
NUR 202	Pediatric Nursing-Clinical	0	2	12	5
PSY 171	Abnormal Psychology	3	0	0	3
6					
NUR 203	Psychiatric Nursing	5	0	0	5
NUR 204	Psychiatric Nursing-Clinical	0	2	12	5
NUR 205	Nursing Seminar	2	0	0	2
ENG 103	Communication Skills	3	0	0	3
7					
NUR 206	Medical-Surgical Nursing/Patient Care Management	7	0	0	7
NUR 207	Medical-Surgical Nursing/Patient Care Management-Clinical	0	2	15	6
	English/Speech Elective				

Required Courses Credit Hours 121
English/Speech Elective Credit Hours 3

Total Credit Hours Required for Graduation 124

The clinical and theory courses shown here in the 4th, 5th and 6th quarters may actually be taken in a different order due to the limited availability of clinical sites.

Note: This sequence of courses is based on a full-time student beginning in the fall quarter. This sequence does not apply to students taking courses other than those listed in this plan of study.

Automotive Mechanics

One out of every seven persons employed in the United States works in some type of automotive business, and automotive mechanics is the largest of the service occupations. To understand the importance of the automotive mechanic, consider that there are more than 150 million cars, trucks, and buses operating in this country. These vehicles require maintenance, inspection, and servicing.

Work as an auto mechanic varies in different shops. Some small shops provide a variety of services on all types of vehicles, while larger ones specialize in one or more areas of service. Some areas of specialization include repairing engines, electrical systems, transmissions, steering and suspensions, brakes, fuel systems, and radiators.

Mechanics inspect and test to determine the causes of faulty operation. They repair or replace defective parts to restore the vehicle or machine to proper operating condition and use shop

manuals and other technical publications as references for technical data.

The Automotive Mechanics program helps students develop manual skills in practical shop work. Through class assignments, discussions, and practical lab experiences, they gain an understanding of the operating principles involved in modern automobiles.

While students may enroll in this program any quarter, the four-quarter day sequence of courses shown in the plan of study is based on a full-time student enrolling in the fall quarter. Also, evening students may elect to enroll in one or more of the available evening course options in Automotive Mechanics. Students successfully completing an Automotive Mechanics option (16 credit hours) are awarded a certificate of completion. Students successfully completing all requirements for the Automotive Mechanics day program are awarded a diploma.

Day Program ☐ 4 Quarters

		CLASS	HOURS LAB	CREDIT
1				
AUT 1100	Tools, Fasteners, and Specifications	2	3	3
AUT 1101	Engine Theory and Systems	2	6	4
AUT 1102	Electrical Systems	2	6	4
MAT 1101	Applied Mathematics	5	0	5
ENG 1101	Communication Skills I	3	0	3
2				
AUT 1104	Engine Performance and Diagnostics	2	6	4
AUT 1107	Brakes and Tires	2	6	4
AUT 1108	Manual Transmissions/Transaxles	2	6	4
ENG 1102	Communication Skills II	3	0	3
3				
AUT 1109	Steering, Suspension, and Alignment	2	6	4
AUT 1111	Automatic Transmissions/Transaxles	2	6	4
AUT 1113	Computerized Engine Controls	2	6	4
PHY 1111	Applied Science	3	2	4
4				
AUT 1106	Engine Rebuilding	2	6	4
AUT 1110	Air Conditioning	2	6	4
AUT 1112	Automotive Diagnosis and Service	2	6	4
EDP 103	Introduction to Microcomputers	3	2	4

Required Courses Credit Hours 66

Note: This suggested sequence of courses is based on a full-time student beginning in the fall quarter. It does not apply to students taking courses other than those listed in this plan of study.

Evening Options

Engine Servicing

		CLASS	HOURS LAB	CREDIT
AUT 1101	Engine Theory and Systems	2	6	4
AUT 1102	Electrical Systems	2	6	4
AUT 1104	Engine Performance and Diagnostics	2	6	4
AUT 1113	Computerized Engine Controls	2	6	4

Required Courses Credit Hours 16

Chassis/Power Train Servicing

AUT 1107	Brakes and Tires	2	6	4
AUT 1108	Manual Transmissions/Transaxles	2	6	4
AUT 1109	Steering, Suspension, and Alignment	2	6	4
AUT 1111	Automatic Transmissions/Transaxles	2	6	4

Required Courses Credit Hours 16

Note: Other course options may be offered according to student demand and available resources.

Business Administration

The Business Administration curriculum is designed to prepare students for entry into middle-management occupations in various businesses and industries. The curriculum provides an overview of the business and industrial world, its organization and management. To meet students' diverse needs, the full program is offered both day and evening.

A student in Durham Tech's Business Administration program develops competencies in the application of management principles. Emphasis is placed on skill development in the areas of management functions, computer applications and analysis, critical thinking and decision-making techniques, marketing, finance, legal aspects of business, oral and written communications, and utilization of human resources. By developing skills in these areas, the graduate will be able to function as a contributing member of a management team.

Day Program ☐ 7 Quarters

		CLASS	HOURS LAB	CREDIT
1				
BUS 101	Introduction to Business	5	0	5
EDP 103	Introduction to Microcomputers	3	2	4
MAT 123	College Mathematics	5	0	5
ENG 101	Communication Skills	3	0	3
2				
BUS 115	Business Law: Contracts and Courts	3	0	3
BUS 236	Principles of Management	3	0	3
ACC 120	Accounting I	5	2	6
ENG 102	Communication Skills Technical Elective	3	0	3
3				
BUS 116	Business Law: Negotiable Instruments	3	0	3
BUS 272	Principles of Supervision	3	0	3
ACC 121	Accounting II	5	2	6
ECO 102	Microeconomics	3	0	3
ENG 103	Communication Skills	3	0	3
4				
BUS 239	Marketing	5	0	5
ECO 104	Macroeconomics	3	0	3
EDP 205	Spreadsheet Applications Technical Elective	3	2	4
5				
BUS 123	Business Finance	3	0	3
BUS 232	Salesmanship	3	0	3
BUS 233	Personnel Management	3	0	3
EDP 127	Business Graphics	3	2	4
PSY 110	General Psychology	3	0	3
6				
BUS 247	Fundamentals of Risk and Insurance	3	0	3
BUS 274	Labor Relations	3	0	3
BUS 275	Business Strategy	3	2	4
ENG 120	Technical Report Writing General Education Elective	3	0	3
7				
BUS 210	Investment Analysis	3	0	3
BUS 219	Credit Procedures and Problems	3	0	3
BUS 235	Small Business Management	3	0	3
ACC 229	Individual Taxes Technical Elective	3	2	4
Required Courses Credit Hours				104
General Education Elective Credit Hours				3
Technical Electives Credit Hours				8

Total Credit Hours Required for Graduation 115

Note: These suggested sequences of courses are based on a full-time student beginning in the fall quarter. These sequences do not apply to students taking courses other than those listed in the plan of study.

The basic principles of administration apply to almost any profession. Consequently, the Business Administration graduate would have the management skills necessary to function effectively in many different industries. A sampling of graduates' positions shows they receive employment in the areas of banking and finance, insurance, retailing, sales, manufacturing, and many other fields. Employment histories confirm that graduates have the tools necessary for success in first-line administration and management.

While students may enroll in this program any quarter, the seven-quarter day and nine-quarter evening sequences of courses shown in the plan of study are based on a full-time student enrolling in the fall quarter. The Associate in Applied Science degree is awarded upon successful completion of the program.

Evening Program ☒ 9 Quarters

		CLASS	HOURS LAB	CREDIT
1				
BUS 101	Introduction to Business	5	0	5
PSY 110	General Psychology	3	0	3
MAT 123	College Mathematics	5	0	5
ENG 101	Communication Skills	3	0	3
2				
BUS 236	Principles of Management	3	0	3
ACC 120	Accounting I	5	2	6
ENG 102	Communication Skills	3	0	3
3				
BUS 272	Principles of Management	3	0	3
ACC 121	Accounting II	5	2	6
ENG 103	Communication Skills	3	0	3
4				
BUS 115	Business Law: Contracts and Courts	3	0	3
ECO 102	Microeconomics	3	0	3
EDP 103	Introduction to Microcomputers	3	2	4
5				
BUS 116	Business Law: Negotiable Instruments	3	0	3
BUS 123	Business Finance	3	0	3
BUS 233	Personnel Management	3	0	3
ECO 104	Macroeconomics	3	0	3
6				
BUS 219	Credit Procedures and Problems	3	0	3
BUS 239	Marketing	5	0	5
EDP 205	Spreadsheet Applications	3	2	4
ENG 120	Technical Report Writing	3	0	3
7				
BUS 232	Salesmanship	3	0	3
BUS 275	Business Strategy	3	2	4
EDP 127	Business Graphics Technical Elective	3	2	4
8				
BUS 235	Small Business Management	3	0	3
BUS 274	Labor Relations Technical Elective General Education Elective	3	0	3
9				
BUS 210	Investment Analysis	3	0	3
BUS 247	Fundamentals of Risk and Insurance	3	0	3
ACC 229	Individual Taxes Technical Elective	3	2	4
Required Courses Credit Hours				104
General Education Elective Credit Hours				3
Technical Electives Credit Hours				8

Total Credit Hours Required for Graduation 115

Business Computer Programming

Computers are an integral part of contemporary life. Computers generate paychecks, bills, and income tax forms; they are used in grocery and retail stores for scanning and totaling customer purchases and for tracking inventory, while schools use them for student instruction. But computers cannot do everything—people must develop and enter the instructions that computers follow as they accomplish various tasks.

The primary objective of the Business Computer Programming curriculum is to prepare individuals for employment as computer programmers. Programmers write the step-by-step instructions that computers use for solving problems and processing information.

Business Computer Programming is designed to develop the student's understanding and skills in computer systems theories and concepts, data processing techniques, logic, operating systems, programming procedures, computer languages, and computer equipment use and operation. Students also have the opportunity to gain experience in writing computer programs with business applications such as billing, payroll, and inventory. Courses in

programming logic and math are included to develop student ability in the area of problem-solving. Using computers to solve business problems is emphasized.

Because communication is important in data processing, communication skills courses are stressed to increase the graduate's ability to convey ideas verbally and in writing. Business and accounting courses are also required to prepare the graduate to work in today's business world.

Graduates of Business Computer Programming may be employed as computer programmers or computer programmer trainees. With experience and perhaps additional education, a graduate may become a data processing manager, computer programming manager, systems analyst, or systems manager.

While students may enroll in this program any quarter, the seven-quarter day and nine-quarter evening sequences of courses shown in the plan of study are based on a full-time student enrolling in the fall quarter. Graduates receive an Associate in Applied Science degree.

Day Program ☐ 7 Quarters

		CLASS	HOURS LAB	CREDIT
1				
EDP 103	Introduction to Microcomputers	3	2	4
EDP 107	Programming Logic	3	2	4
PSY 110	General Psychology	3	0	3
MAT 121	Algebra II	5	0	5
ENG 101	Communication Skills	3	0	3
2				
EDP 111	COBOL I	3	2	4
EDP 113	Microcomputer Support Software	3	2	4
EDP 140	Operating Systems	3	2	4
MAT 137	Computer Mathematics	5	0	5
ENG 102	Communication Skills	3	0	3
3				
EDP 112	COBOL II	3	2	4
EDP 151	C Language I	3	2	4
ACC 120	Accounting I	5	2	6
ENG 103	Communication Skills	3	0	3
4				
EDP 152	C Language II	3	2	4
EDP 162	Assembler Language I	3	2	4
ACC 121	Accounting II	5	2	6
BUS 101	Introduction to Business	5	0	5
5				
EDP 190	COBOL Systems I	3	2	4
EDP 230	Microcomputer Networking	3	2	4
EDP 251	C Language III	3	2	4
SPH 115	Introduction to Public Speaking	3	0	3
6				
EDP 206	SAS	3	2	4
EDP 215	COBOL Systems II	3	2	4
ENG 120	Technical Report Writing Data Processing Elective Technical Elective	3	0	3
7				
EDP 220	Database Management	3	2	4
EDP 290	Work Experience Data Processing Elective	1	10	2
Required Courses Credit Hours				107
Technical Elective Credit Hours				4
Data Processing Electives Credit Hours				7
Total Credit Hours Required for Graduation				118

Evening Program ☒ 9 Quarters

		CLASS	HOURS LAB	CREDIT
1				
EDP 103	Introduction to Microcomputers	3	2	4
EDP 107	Programming Logic	3	2	4
MAT 121	Algebra II	5	0	5
2				
EDP 113	Microcomputer Support Software	3	2	4
EDP 140	Operating Systems	3	2	4
MAT 137	Computer Mathematics	5	0	5
ENG 101	Communication Skills	3	0	3
3				
EDP 111	COBOL I	3	2	4
BUS 101	Introduction to Business	5	0	5
PSY 110	General Psychology	3	0	3
ENG 102	Communication Skills	3	0	3
4				
EDP 151	C Language I	3	2	4
ACC 120	Accounting I	5	2	6
ENG 103	Communication Skills	3	0	3
5				
EDP 112	COBOL II	3	2	4
EDP 152	C Language II	3	2	4
ACC 121	Accounting II	5	2	6
6				
EDP 162	Assembler Language I	3	2	4
EDP 190	COBOL Systems I	3	2	4
EDP 251	C Language III	3	2	4
SPH 115	Introduction to Public Speaking	3	0	3
7				
EDP 215	COBOL Systems II	3	2	4
EDP 230	Microcomputer Networking Data Processing Elective	3	2	4
8				
EDP 290	Work Experience	1	10	2
ENG 120	Technical Report Writing Data Processing Elective	3	0	3
9				
EDP 206	SAS	3	2	4
EDP 220	Database Management Technical Elective	3	2	4
Required Courses Credit Hours				107
Technical Elective Credit Hours				4
Data Processing Electives Credit Hours				7
Total Credit Hours Required for Graduation				118

Note: These suggested sequences of courses are based on a full-time student beginning in the fall quarter. These sequences do not apply to students taking courses other than those listed in the plan of study.

College Transfer

Through Durham Tech's College Transfer program, students can complete up to two years of coursework for the baccalaureate degree. The wide variety of freshman- and sophomore-level courses satisfies general education requirements at senior institutions across the United States. Areas of study include social sciences, natural sciences, the humanities, mathematics, and physical education.

Completion of the College Transfer program is designed to prepare students to pursue the advanced coursework necessary to earn degrees in areas like education, engineering, nursing, chemistry, business, and mathematics. Faculty advisers work closely with students to plan an individual program of study in preparation for transfer.

The College Transfer program also offers a pre-dental hygiene option in collaboration with the University of North Carolina School of Dentistry. The pre-dental hygiene option gives students the

opportunity to take introductory courses in areas such as chemistry, sociology, and psychology prior to transferring to UNC's degree program for dental hygiene.

The strength of the College Transfer program is found in the quality of its people—both faculty and students. Classes are small, and close interaction between instructors and students is a vital component of the College Transfer experience at Durham Tech. Standards are high, paralleling those of nearby universities and four-year colleges. A growing number of students from the College Transfer program have transferred with success to senior institutions across the country.

Students may enroll at the beginning of any quarter during the year, and those completing a prescribed two-year plan of study will earn the Associate of Arts or Associate of Science degree. Courses are offered during the day and evening.

Associate in Arts

The Associate in Arts degree is awarded upon completion of 96 quarter credit hours in the areas below. Substitutions for any of these courses may be made if required by the four-year institution the student plans to attend.

English — 10 credit hours: ENG 151, 152

Humanities and Fine Arts — 15 credit hours selected from at least two of the following subject areas:

ART 201, 202
ENG 231, 232, 233, 240, 241, 242, 250, 251, 252
MUS 151
PHI 201, 202
REL 151
SPH 151

Social Science — 15 credit hours: HIS 151, 152, and 5 credit hours selected from:

ANT 151
ECO 201, 202
GEO 151
HIS 211, 212, 213, 214, 251, 252
POL 201
PSY 151, 201, 210
SOC 151, 201

Mathematics — 10 credit hours selected from:

MAT 151, 152, 171, 172, 175, 201, 202, 211, 212, 213

Natural Science — 10 credit hours of the same lab science selected from:

BIO 151, 152, 153
CHM 151, 152, 153
PHY 151, 152, 153, or 211, 212, 213

Physical Education — 3 credit hours selected from:

PED 151, 161, 171, 172, 181, 191, 211, 221, 231, 241, 251, 261, 271, 281

Electives — 33 credit hours selected from courses listed above which are not used to satisfy any of the other requirements or from the following courses:

BIO 160, 161, 240; CHM 211, 212, 213; CSC 151; DFT 151; ENG 161; FRE 151, 152, 153; HEA 151, 161; PHY 190; PSY 160, 171; SPA 151, 152, 153, 201, 202

Associate in Science

The Associate in Science degree is awarded upon completion of 96 quarter credit hours in the areas below. Substitutions for any of these courses may be made if required by the four-year institution the student plans to attend.

English — 10 credit hours: ENG 151, 152

Humanities and Fine Arts — 10 credit hours selected from the following subject areas:

ART 201, 202
ENG 231, 232, 233, 240, 241, 242, 250, 251, 252
MUS 151
PHI 201, 202
REL 151
SPH 151

Social Science — 10 credit hours: HIS 151, 152

Mathematics — 20 credit hours selected from:

MAT 171, 172, 175, 201, 202, 211, 212, 213

Natural Science — 25 credit hours selected from:

BIO 151, 152, 153
CHM 151, 152, 153, 211, 212, 213
PHY 151, 152, 153 or 211, 212, 213

Physical Education — 3 credit hours selected from:

PED 151, 161, 171, 172, 181, 191, 211, 221, 231, 241, 251, 261, 271, 281

Electives — 18 credit hours selected from courses listed above which are not used to satisfy any of the other requirements or from the following courses:

ANT 151; BIO 160, 161, 240; CSC 151; DFT 151; ECO 201, 202; ENG 161; FRE 151, 152, 153; GEO 151; HEA 151, 161; HIS 211, 212, 213, 214, 251, 252; POL 201; PSY 151, 160, 171, 201, 210; SOC 151, 201; SPA 151, 152, 153, 201, 202

Criminal Justice-Protective Services Technology

The Criminal Justice program prepares students for careers in the multifaceted criminal justice system. The curriculum is structured around a core of courses that offers students the opportunity to acquire basic knowledge and skills necessary for performing law enforcement, security, and correctional services.

The curriculum covers a variety of topics in criminal justice, and focuses on developing the ability to understand and apply legal concepts, investigative techniques, interviewing and interrogation methods, evidence collection and presentation, report writing, patrol operations, traffic management, and other aspects of law enforcement administration and operations.

The program also stresses practical skills necessary for dealing with the complex social, psychological, political, and organizational factors that affect the discretionary decisions made by law enforcement personnel. This blend of specific skills and informed perspectives prepares the criminal justice graduate to make the difficult decisions often required when enforcing the law and serving the broader needs of the community.

Day and Evening Programs ▣ 7 Quarters

		CLASS	HOURS LAB	CREDIT
1				
CJC 101	Introduction to Criminal Justice	5	0	5
CJC 115	Criminal Procedure	5	0	5
PSY 110	General Psychology	3	0	3
ENG 101	Communication Skills Technical Elective	3	0	3
2				
CJC 102	Criminology	5	0	5
CJC 110	Juvenile Delinquency	5	0	5
MAT 123	College Mathematics	5	0	5
ENG 102	Communication Skills	3	0	3
3				
CJC 203	Collision Investigation and the Law	4	2	5
CJC 210	Criminal Investigation	5	0	5
EDP 103	Introduction to Microcomputers	3	2	4
ENG 103	Communication Skills	3	0	3
4				
CJC 125	Judicial Systems	5	0	5
CJC 220	Police Administration	5	0	5
5				
CJC 212	Drugs	5	0	5
CJC 217	Patrol Procedures	5	0	5
CJC 285	Ethics in Law Enforcement General Education Elective	5	0	5
6				
CJC 205	Evidence	5	0	5
PSY 125	Psychology of Stress	5	0	5
ENG 120	Technical Report Writing Technical Elective	3	0	3
7				
CJC 211	Criminalistics	5	0	5
CJC 216	Criminal Law	5	0	5
CJC 270	Constitutional Law	5	0	5
BUS 272	Principles of Supervision	3	0	3

Required Courses	Credit Hours	107
General Education Elective	Credit Hours	3
Technical Electives	Credit Hours	6

Total Credit Hours Required for Graduation 116

Within the curriculum, the Private Security option offers students the opportunity to study the private security business and the services it provides. Courses in this option examine topics such as private security and the law, fire inspection, hazardous materials, industrial safety, and security systems.

Job opportunities are available within federal, state, county, and municipal governments. The knowledge and skills acquired in this program also qualify graduates for positions with private enterprise in areas such as industrial, retail, and private security.

Graduates in Criminal Justice earn an Associate in Applied Science degree. Students who meet the requirements outlined in the plan of study for the Private Security option receive a diploma. While students may enroll in the program any quarter, the course sequences outlined in the plans of study for both Criminal Justice-Protective Services Technology and Private Security are based on a full-time student enrolling in the fall quarter.

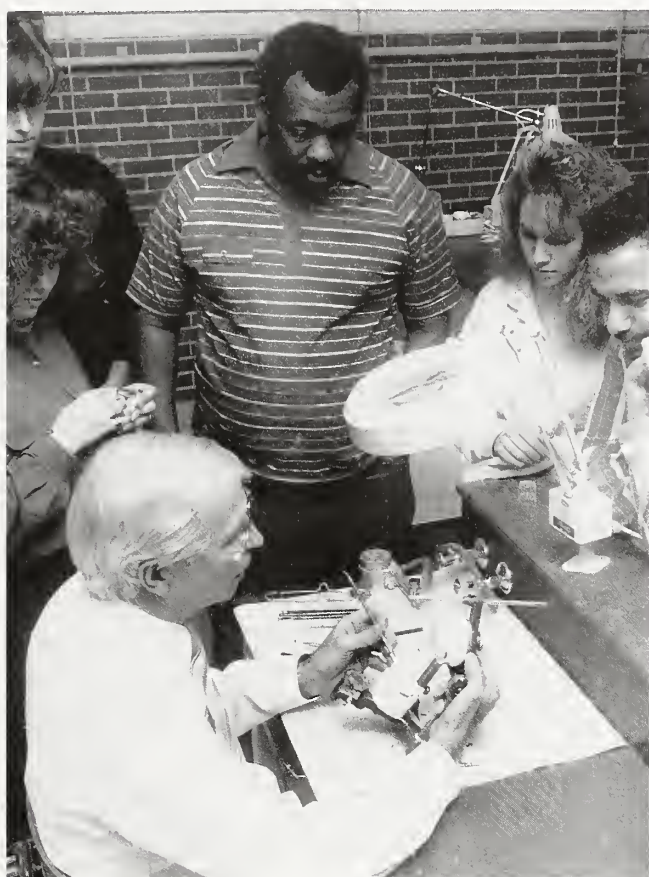
Private Security Option Day and Evening Programs ▣ 5 Quarters

		CLASS	HOURS LAB	CREDIT
1				
CJC 101	Introduction to Criminal Justice	5	0	5
CJC 212	Drugs	5	0	5
CJC 120	Introduction to Security	5	0	5
ENG 101	Communication Skills	3	0	3
2				
CJC 102	Criminology	5	0	5
CJC 240	Private Security and Law	5	0	5
ENG 102	Communication Skills	3	0	3
3				
CJC 216	Criminal Law	5	0	5
CJC 210	Criminal Investigation	5	0	5
FIP 231	Sprinkler and Standpipe Systems	3	0	3
ISC 130	Industrial Safety	3	0	3
4				
FIP 235	Fire Inspection	3	0	3
PSY 110	General Psychology	3	0	3
ENG 120	Technical Report Writing	3	0	3
5				
CJC 217	Patrol Procedures	5	0	5
CJC 285	Ethics in Law Enforcement	5	0	5
FIP 218	Hazardous Materials	3	2	4
EDP 103	Introduction to Microcomputers	3	2	4

Required Courses Credit Hours 74

Note: These suggested sequences of courses are based on a full-time student beginning in the fall quarter. These sequences do not apply to students taking courses other than those listed in this plan of study.

Dental Laboratory Technology



The Dental Laboratory Technology program teaches the techniques and skills for fabricating artificial dental restorations as prescribed by a licensed practicing dentist and enables the graduate to function effectively in the dental laboratory.

Using specialized hand instruments and equipment and materials such as gypsum, waxes, acrylics, ceramics, and precious and non-precious metals, the dental laboratory technician fabricates complete and partial dentures, crowns, bridges, and orthodontic appliances. Dental laboratory technicians perform a variety of laboratory procedures. Many are specialists in crowns and bridges, dentures, and dental ceramics. The dental technician may be employed by dentists, commercial dental laboratories, schools of dentistry, or Veterans Administration hospitals. Companies manufacturing dental materials and equipment also employ technicians as sales representatives.

This curriculum includes courses in complete and partial denture techniques, crown and bridge techniques, ceramics, and orthodontic techniques. Students gain practical experience during their sixth and seventh quarters of study when they are introduced to actual laboratory work by fabricating prosthetic restorations for the dental profession. Students also rotate to off-campus sites for additional laboratory exposure.

While students may enroll in this program any quarter, the seven-quarter day sequence of courses shown in the plan of study is based on a full-time student enrolling in the fall quarter. The Dental Laboratory Technology program is accredited by the Commission on Dental Accreditation of the American Dental Association, a specialized accrediting body recognized by the Council on Postsecondary Accreditation and by the United States Department of Education. Graduates of the program receive an Associate in Applied Science degree.

Day Program ☐ 7 Quarters

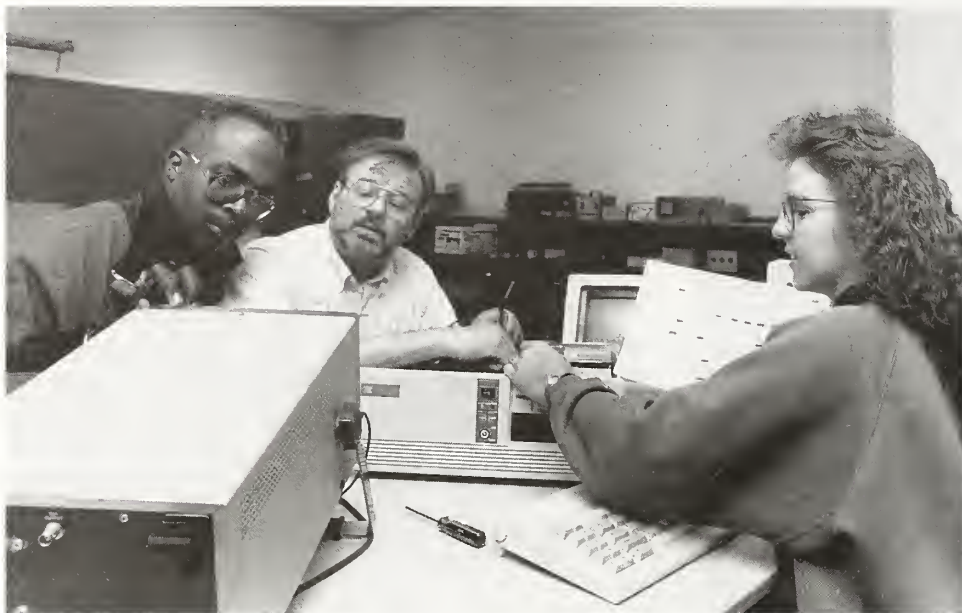
		HOURS		
		CLASS	LAB	CREDIT
1				
DEN 101	Dental Anatomy	2	9	5
DEN 104	Dental Materials	2	6	4
DEN 106	Introduction to Complete Dentures	1	6	3
SCI 135	Physical Science for Dental Technicians	5	2	6
2				
DEN 102	Oral Anatomy and Physiology	2	0	2
DEN 107	Intermediate Denture Techniques	1	9	4
DEN 111	Dental Metallurgy	2	0	2
DEN 113	Cast Inlay and Crown Techniques	2	9	5
ENG 101	Communication Skills	3	0	3
3				
DEN 108	Cast Partial Denture Frameworks	2	9	5
DEN 115	Crown and Bridge Techniques I	1	9	4
MAT 123	College Mathematics	5	0	5
ENG 102	Communication Skills	3	0	3
4				
DEN 109	Removable Wrought and Special Restorations	2	12	6
DEN 116	Crown and Bridge Techniques II	2	12	6
ENG 103	Communication Skills	3	0	3
5				
DEN 201	Advanced Complete Denture Techniques	2	12	6
DEN 204	Intermediate Partial Denture Techniques	2	6	4
DEN 207	Porcelain Jacket Crowns	2	9	5
SOC 110	Principles of Sociology	3	0	3
6				
DEN 205	Advanced Partial Denture Techniques	1	9	4
DEN 211	Porcelain Fused to Metal Crowns	2	6	4
DEN 213	Dental Laboratory Practice	1	6	3
7				
DEN 209	Jurisprudence and Ethics Seminar	3	0	3
DEN 212	Advanced Ceramic Techniques	2	12	6
DEN 214	Advanced Dental Laboratory Practice	1	6	3
EDP 103	Introduction to Microcomputers	3	2	4
ENG 120	Technical Report Writing	3	0	3

Required Courses Credit Hours 114
General Education Elective Credit Hours 3

Total Credit Hours Required for Graduation 117

Note: This sequence of courses is based on a full-time student beginning in the fall quarter. This sequence does not apply to students taking courses other than those listed in this plan of study.

Digital Electronic Repair



Computers and digital devices touch our lives almost constantly in today's high technology environment. The cash register at the supermarket, the traffic light on the street corner, and the computer which calculates our paychecks are only a few of the digital devices and systems surrounding us.

The Digital Electronic Repair curriculum provides training in basic electricity and electronics, digital electronics, and troubleshooting techniques. This program teaches the technical knowledge

and mechanical skills necessary to locate problems associated with computers and other electronic assemblies. This program offers hands-on troubleshooting techniques using real computers.

While students may enroll in this program any quarter, the four-quarter day and seven-quarter evening sequences of courses shown in the plan of study are based on a full-time student enrolling in the fall quarter. Graduates of the program receive a diploma.

Day Program ☐ 4 Quarters

			HOURS		
			CLASS	LAB	CREDIT
1	ELC 1101	Introduction to Electricity	4	6	6
	EDP 103	Introduction to Microcomputers	3	2	4
	MAT 1101	Applied Mathematics	5	0	5
	ENG 1101	Communication Skills I	3	0	3
2	ELN 1010	Solid State Circuits/Applications	4	6	6
	EDP 1111	Assembler/Machine Language	3	2	4
	MAT 1103	Applied Mathematics	5	0	5
	ENG 1102	Communication Skills II	3	0	3
3	ELN 1020	Digital Electronics	4	6	6
	ELN 1030	Microprocessor Fundamentals	4	6	6
	PHY 1111	Applied Science	3	2	4
4	ELN 1040	Electronic Systems Troubleshooting and Repair	4	6	6
	ELN 1050	Computer Systems Troubleshooting	4	6	6
	ENG 120	Technical Report Writing	3	0	3
Required Courses Credit Hours			67		

Evening Program ☒ 7 Quarters

			HOURS		
			CLASS	LAB	CREDIT
1	ELC 1101	Introduction to Electricity	4	6	6
	MAT 1101	Applied Mathematics	5	0	5
2	ELN 1010	Solid State Circuits/Applications	4	6	6
	MAT 1103	Applied Mathematics	5	0	5
3	ELN 1020	Digital Electronics	4	6	6
	EDP 103	Introduction to Microcomputers	3	2	4
4	ELN 1030	Microprocessor Fundamentals	4	6	6
	EDP 1111	Assembler/Machine Language	3	2	4
5	ELN 1040	Electronic Systems Troubleshooting and Repair	4	6	6
	ENG 1101	Communication Skills I	3	0	3
6	ELN 1050	Computer Systems Troubleshooting	4	6	6
	ENG 1102	Communication Skills II	3	0	3
7	PHY 1111	Applied Science	3	2	4
	ENG 120	Technical Report Writing	3	0	3
Required Courses Credit Hours			67		

Note: These suggested sequences of courses are based on a full-time student beginning in the fall quarter. These sequences do not apply to students taking courses other than those listed in the plan of study.

Early Childhood Associate



The Early Childhood Associate program is designed for individuals interested in working with infants and young children. With the increasing number of preschool children requiring day care and with the increasing awareness of the role early experiences play in shaping a child's future behavior, attitudes, and abilities, the need for trained child care specialists has risen dramatically.

The specialist strives to meet the developmental needs of the individual child. A source of warmth and security to the child, the specialist is an organizer of the environment and a facilitator of learning. In this program, classroom learning and fieldwork in child growth and development, the physical and nutritional needs of children, the care and guidance of children, and communication with children and their parents are integrated to provide the student with the training necessary to function effectively as a child care specialist.

The Early Childhood Associate program offers courses to people who are beginning careers in child care, or who are working with young children and would like to increase their professional skills, or who would like to start their own day care centers or homes.

Job opportunities are available not only in day care centers, but also in nursery schools, kindergartens, child development

centers, hospitals, rehabilitation clinics, evaluation clinics, camps, and recreational centers. Classes are taught during the afternoon and in the evening to accommodate employees of schools and day care centers.

Also, teachers' aides, parents, and students who plan to transfer to four-year institutions benefit from the curriculum.

While students may enroll in this program any quarter, the seven-quarter sequence of courses shown in the plan of study is based on a full-time student enrolling in the fall quarter. Graduates of the program receive an Associate in Applied Science degree in Early Childhood.

Afternoon/ Evening Program ■ 7 Quarters

		HOURS		
		CLASS	LAB	CREDIT
1				
EDU 115	Introduction to Child Care	4	0	4
EDU 118	Family Involvement	1	0	1
EDU 125	Physical Development I	3	0	3
EDP 103	Introduction to Microcomputers	3	2	4
ENG 101	Communication Skills	3	0	3
2				
General Education Elective				
EDU 121	Social Development I	3	0	3
EDU 126	Physical Development II	4	0	4
SOC 110	Principles of Sociology	3	0	3
MAT 123	College Mathematics	5	0	5
ENG 102	Communication Skills	3	0	3
3				
Major Elective				
EDU 111	Emotional Development I	3	0	3
EDU 122	Social Development II	4	0	4
HEA 102	Child Care Health	3	0	3
PSY 110	General Psychology	3	0	3
ENG 103	Communication Skills	3	0	3
4				
EDU 112	Emotional Development II	4	0	4
EDU 130	Cognitive Development I	5	0	5
HEA 101	Child Care Safety	3	0	3
5				
EDU 131	Cognitive Development II	5	0	5
EDU 201	Language Development I	4	0	4
SPH 120	Voice and Diction	3	0	3
6				
Technical Elective				
EDU 202	Language Development II	4	0	4
EDU 215	Child Care Applications I	5	10	6
SOC 120	Marriage and Family	3	0	3
7				
EDU 206	Adjustment Problems	3	0	3
EDU 216	Child Care Applications II	5	20	7
Technical Elective				

Required Courses	Credit Hours	96
General Education Elective	Credit Hours	3
Technical Electives	Credit Hours	6
Major Elective	Credit Hours	2

Total Credit Hours Required for Graduation 107

Note: This suggested sequence of courses is based on a full-time student beginning in the fall quarter. This sequence does not apply to students taking courses other than those listed in this plan of study.

Electronics Engineering Technology

We live in a world of electronics. From electronic garage door openers and videotape recorders in the home, to satellites relaying radio and television programs from continent to continent, the field of electronics has a profound influence on the way we live and work. The electronic computer is affecting the world of business and industry. Medical electronics is a new frontier with a growing number of devices used for diagnostic purposes. The space program depends on electronics. Electronics is a diverse and challenging field which continues to grow. Because of rapid expansion and growth, opportunities for careers in the electronics field are excellent.

The Electronics Engineering Technology program provides a theoretical and practical base for electronics technicians who may

work as assistants to engineers or as liaisons between engineers and skilled craftpersons. Electronics technicians apply their technological skills to problems related to research, design, development, installation, operation, maintenance, sales, and repair of electronic equipment and systems.

Special features of this program include additional course offerings in digital and linear integrated circuits, microelectronics, microprocessor technology and applications, and BASIC computer programming. Curriculum courses are offered in the day and evening.

While students may enroll in this program any quarter, the eight-quarter day and nine-quarter evening sequences of courses shown in the plan of study are based on a full-time student enrolling in the fall quarter. Graduates of the Electronics Engineering Technology program receive the Associate in Applied Science degree. While graduates are prepared for employment in the electronics field, those who desire additional education may transfer their Durham Tech credits to a number of universities to be applied toward a Bachelor of Technology degree. The pre-electronics sequence is offered during the spring and summer quarters.

Pre-Electronics Engineering Technology

			HOURS		CREDIT
			CLASS	LAB	
1					
	MAT 120	Algebra I	5	0	5
	MAT 121	Algebra II	5	0	5
	ELC 1101	Introduction to Electricity	4	6	6

Day Program ☐ 8 Quarters

				HOURS		CREDIT
				CLASS	LAB	
1						
	ELN 101	DC Circuit Analysis	4	6	7	
	MAT 145	Linear Algebra	5	0	5	
	ENG 101	Communication Skills	3	0	3	
2						
	ELN 102	AC Circuit Analysis	4	6	7	
	MAT 146	Trigonometry	5	0	5	
	ENG 102	Communication Skills	3	0	3	
3						
	ELN 103	Mechanical Processes for Electronics	1	3	2	
	ELN 105	Introduction to Active Devices	4	4	6	
	MAT 147	Nonlinear Algebra and Logic	5	0	5	
4						
	ELN 205	Application of Active Devices I	4	4	6	
	EDP 109	BASIC Language I	3	2	4	
	ENG 103	Communication Skills	3	0	3	
5						
	ELN 216	Pulse and Waveshaping Circuits	4	4	6	
	ELN 218	Application of Active Devices II	4	4	6	
	PSY 110	General Psychology	3	0	3	
	ENG 120	Technical Report Writing	3	0	3	
6						
	ELN 219	Linear Integrated Circuits	4	4	6	
	ELN 240	Digital Electronics	4	6	7	
	DFT 103	Technical Drawing	2	3	3	
		General Education Elective				
7						
	ELN 270	Microprocessor Fundamentals	4	6	7	
	DFT 201	Electronic Drafting	1	3	2	
	PHY 145	Physics	4	2	5	
8						
	ELN 201	Construction of Electronic Devices	1	6	3	
	ELN 280	Microprocessor Applications	3	6	6	
	PHY 146	Physics	4	2	5	

Required Courses Credit Hours 118
General Education Elective Credit Hours 3

Total Credit Hours Required for Graduation 121

Evening Program ☒ 9 Quarters

				HOURS		CREDIT
				CLASS	LAB	
1						
	ELN 101	DC Circuit Analysis	4	6	7	
	MAT 145	Linear Algebra	5	0	5	
	ENG 101	Communication Skills	3	0	3	
2						
	ELN 102	AC Circuit Analysis	4	6	7	
	MAT 146	Trigonometry	5	0	5	
	ENG 102	Communication Skills	3	0	3	
3						
	ELN 105	Introduction to Active Devices	4	4	6	
	MAT 147	Nonlinear Algebra and Logic	5	0	5	
	ENG 103	Communication Skills	3	0	3	
4						
	ELN 103	Mechanical Processes for Electronics	1	3	2	
	ELN 205	Application of Active Devices I	4	4	6	
	EDP 109	BASIC Language I	3	2	4	
5						
	ELN 216	Pulse and Waveshaping Circuits	4	4	6	
	ELN 218	Application of Active Devices II	4	4	6	
6						
	ELN 219	Linear Integrated Circuits	4	4	6	
	ELN 240	Digital Electronics	4	6	7	
7						
	ELN 270	Microprocessor Fundamentals	4	6	7	
	DFT 103	Technical Drawing	2	3	3	
	ENG 120	Technical Report Writing	3	0	3	
8						
	ELN 280	Microprocessor Applications	3	6	6	
	DFT 201	Electronic Drafting	1	3	2	
	PHY 145	Physics	4	2	5	
9						
	ELN 201	Construction of Electronic Devices	1	6	3	
	PHY 146	Physics	4	2	5	
	PSY 110	General Psychology	3	0	3	
		General Education Elective				

Required Courses Credit Hours 118
General Education Elective Credit Hours 3

Total Credit Hours Required for Graduation 121

Note: These suggested sequences of courses are based on a full-time student beginning in the fall quarter. These sequences do not apply to students taking courses other than those listed in the plan of study.

Fire Protection Technology



The Fire Protection Technology program provides learning experiences which enable the student to understand municipal fire protection problems and to apply this knowledge in an effective and economical way. The program also enables the Fire Protection Technology graduate to develop the management and supervisory skills needed in the modern fire department.

Through classroom and laboratory exercises, the student is introduced to various fire service hazards, fire prevention problems, and fire service administrative problems. The student is taught numerous skills which may include figuring pump hydraulics, investigating arson scenes, firefighting strategies, grading fire defenses, and fire management. Emphasis is also on utilizing the funds, equipment, and manpower needed to provide efficient and economical fire protection. Specific competencies for performing fire service administrative and supervisory duties are included in the curriculum.

Graduates of the program seeking employment may be hired by governmental agencies, industrial firms, educational organizations, and insurance rating organizations. Employed individuals should have opportunities for positions requiring increased skill and responsibility as they increase their job competence.

Fire Protection Technology classes are taught in the evenings. While students may enroll in this program any quarter, the seven-quarter evening sequence of courses shown in the plan of study is based on a full-time student enrolling in the fall quarter. Graduates of the program receive an Associate in Applied Science degree.

Evening Program ■ 7 Quarters

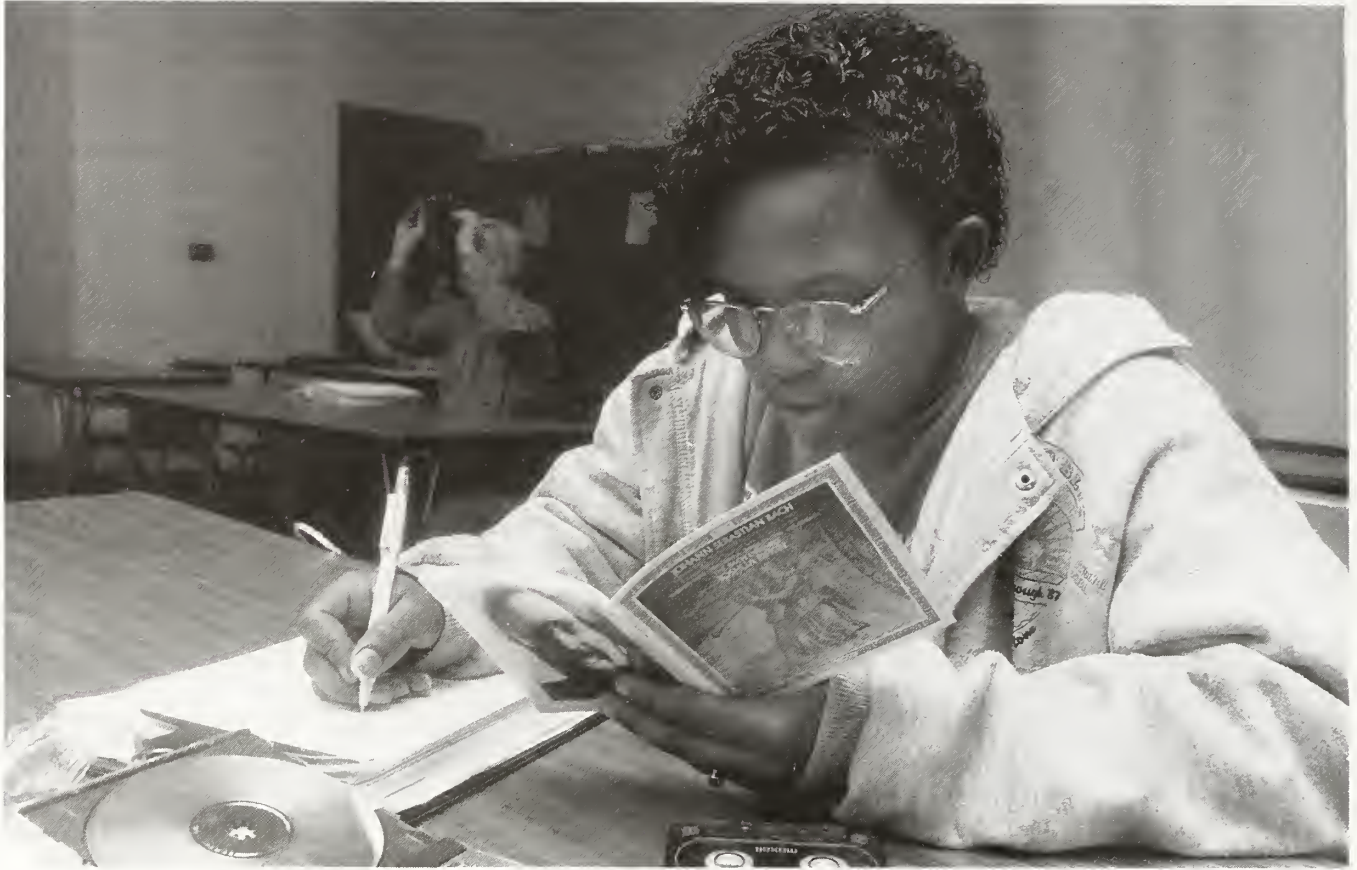
		HOURS		CREDIT
		CLASS	LAB	
1				
FIP 101	Introduction to Fire Protection	3	0	3
FIP 201	Arson Investigation	5	0	5
PSY 110	General Psychology	3	0	3
ENG 101	Communication Skills	3	0	3
	Technical Elective			
2				
FIP 104	Building Construction for the Fire Service	3	0	3
FIP 211	Grading Fire Defenses	3	0	3
FIP 225	Fire Law	5	0	5
MAT 123	College Mathematics	5	0	5
ENG 102	Communication Skills	3	0	3
3				
FIP 230	Hydraulics	5	0	5
FIP 231	Sprinkler and Standpipe Systems	3	0	3
EDP 103	Introduction to Microcomputers	3	2	4
ENG 103	Communication Skills	3	0	3
	General Education Elective			
4				
FIP 235	Fire Inspection	3	0	3
CHM 110	Chemistry for Fire Science	3	2	4
EDU 135	Methods of Instruction	3	2	4
5				
FIP 218	Hazardous Materials	3	2	4
FIP 250	Fire Management I	5	0	5
FIP 290	Master Planning	5	0	5
	Technical Elective			
6				
FIP 220	Fire Strategy	3	2	4
FIP 251	Fire Management II	5	0	5
CHM 115	Chemistry of Hazardous Materials	4	2	5
ENG 120	Technical Report Writing	3	0	3
7				
FIP 115	Fire Prevention	3	0	3
FIP 221	Advanced Fire Strategy	3	2	4
FIP 252	Fire Management III	5	0	5
BUS 272	Principles of Supervision	3	0	3
POL 110	State and Local Government	3	0	3

Required Courses	Credit Hours	108
General Education Elective	Credit Hours	3
Technical Electives	Credit Hours	6

Total Credit Hours Required for Graduation 117

Note: This suggested sequence of courses is based on a full-time student beginning in the fall quarter. This sequence does not apply to students taking courses other than those listed in this plan of study.

General Education



The General Education program is designed principally for students who wish to broaden their educations or who are not ready to select a specific program of study. This curriculum provides the student with an introduction to liberal arts in a program that can be tailored to personal interests rather than to specific technical or professional requirements.

The student must complete the minimum course requirements in English, social sciences, humanities, and mathematics/science, as outlined in the next section. To meet the elective courses requirement, the student may apply toward the degree any other English, social sciences, humanities, mathematics, or science courses numbered between 101 and 150 or any technical courses. By special permission of the General Education program director, students can substitute English, social sciences, humanities, mathematics, and science courses numbered between 151 and 200 for the minimum requirements or to satisfy the remaining credit hour requirements.

Upon successful completion of 96 credit hours, the student is awarded an Associate in General Education degree. Students who have completed another curriculum at Durham Technical Community College may apply 55 of that program's credit hours toward the 73 elective credit hours required for a degree in General Education.

Students may enroll in the program any quarter and can complete requirements through day or evening classes.

Associate in General Education

The Associate in General Education degree is awarded based upon completion of 96 quarter credit hours including the minimum in each of the areas below.

English — 12 credit hours:

ENG 101, 102, 103, and 3 credit hours selected from:
ENG 120, ENG 130, SPH 111, SPH 112

Humanities — 3 credit hours selected from:

ART, MUS, PHI numbered between 101 and 150 or ENG 125

Social Sciences — 3 credit hours selected from:

POL, PSY, SOC numbered between 101 and 150

Mathematics and Science — 5 credit hours selected from:

BIO, CHM, MAT, PHY numbered between 101 and 150

Electives — 73 credit hours selected from:

ART, BIO, CHM, ENG, HIS, MAT, MUS, PHI, PHY, POL, PSY, SOC, SPH numbered between 101 and 150, or any technical courses

General Office

The General Office program is designed to present options for the office employee. Employment skills are developed for clerical office occupations such as word processor, clerk-typist, machine dictation transcriber, and records clerk. In addition, knowledge and skills are taught in the areas of electronic document storage and retrieval, and computer software utilization.

The student learns the accepted office procedures required by business, industrial, and professional areas. This special train-

ing is supplemented by related courses in professional development, English, mathematics, accounting, business administration, and business computer programming.

While students may enroll in this program any quarter, the six-quarter day and nine-quarter evening sequences of courses shown in the plan of study are based on a full-time student enrolling in the fall quarter. On completing the curriculum, the student is awarded the Associate in Applied Science degree.

Day Program □ 6 Quarters

		CLASS	HOURS LAB	CREDIT
1				
SEC 101	Typewriting I	2	3	3
SEC 109	Professional Development	3	0	3
BUS 101	Introduction to Business	5	0	5
MAT 123	College Mathematics	5	0	5
ENG 101	Communication Skills Technical Elective	3	0	3
2				
SEC 102	Typewriting II	2	3	3
ACC 120	Accounting I	5	2	6
ENG 102	Communication Skills General Education Elective	3	0	3
3				
SEC 103	Typewriting III	2	3	3
SEC 115	Records Management	3	2	4
EDP 103	Introduction to Microcomputers	3	2	4
SPH 120	Voice and Diction	3	0	3
ENG 103	Communication Skills Technical Elective	3	0	3
4				
SEC 201	Typewriting IV	2	3	3
SEC 230	Machine Dictation and Transcription	3	2	4
SEC 260	Word Processing I	3	2	4
SOC 110	Principles of Sociology	3	0	3
5				
SEC 204	Simulated Office Application	2	3	3
SEC 231	ABC Shorthand	3	2	4
SEC 261	Word Processing II	3	2	4
SEC 280	Administrative Office Procedures	3	2	4
EDP 205	Spreadsheet Applications	3	2	4
6				
SEC 232	ABC Shorthand Dictation and Transcription	3	2	4
SEC 262	Word Processing III	1	4	3
SEC 270	Business Communication	3	0	3
SEC 290	Work Experience	1	20	3
EDP 125	Desktop Publishing	1	4	3
Required Courses Credit Hours				97
General Education Elective Credit Hours				3
Technical Electives Credit Hours				6
Total Credit Hours Required for Graduation				106

Evening Program ■ 9 Quarters

		CLASS	HOURS LAB	CREDIT
1				
SEC 101	Typewriting I	2	3	3
SEC 109	Professional Development	3	0	3
ENG 101	Communication Skills Technical Elective	3	0	3
2				
SEC 102	Typewriting II	2	3	3
BUS 101	Introduction to Business	5	0	5
MAT 123	College Mathematics	5	0	5
3				
ACC 120	Accounting I	5	2	6
SOC 110	Principles of Sociology	3	0	3
ENG 102	Communication Skills	3	0	3
4				
SEC 103	Typewriting III	2	3	3
ENG 103	Communication Skills General Education Elective	3	0	3
5				
SEC 115	Records Management	3	2	4
SEC 201	Typewriting IV	2	3	3
SEC 230	Machine Dictation and Transcription	3	2	4
SPH 120	Voice and Diction	3	0	3
6				
SEC 231	ABC Shorthand	3	2	4
EDP 103	Introduction to Microcomputers Technical Elective	3	2	4
7				
SEC 204	Simulated Office Application	2	3	3
SEC 232	ABC Shorthand Dictation and Transcription	3	2	4
SEC 260	Word Processing I	3	2	4
SEC 280	Administrative Office Procedures	3	2	4
8				
SEC 261	Word Processing II	3	2	4
SEC 270	Business Communication	3	0	3
EDP 205	Spreadsheet Applications	3	2	4
9				
SEC 262	Word Processing III	1	4	3
SEC 290	Work Experience	1	20	3
EDP 125	Desktop Publishing	1	4	3
Required Courses Credit Hours				97
General Education Elective Credit Hours				3
Technical Electives Credit Hours				6
Total Credit Hours Required for Graduation				106

Note: These suggested sequences of courses are based on a full-time student beginning in the fall quarter. These sequences do not apply to students taking courses other than those listed in the plan of study.

Industrial Electricity/Motors and Controls

The Industrial Electricity/Motors and Controls program provides training in the fundamentals and practices of electrical trades. Classroom and laboratory experiences enable the student to become proficient in installing and maintaining electrical wiring and electrical devices such as motors, motor control circuits, lighting circuits, and switching and control equipment in residential, commercial, industrial, and other institutional settings.

Classroom instruction includes the fundamentals of direct and alternating current circuits; residential, commercial, and industrial maintenance and installations; National Electrical Code regulations and calculations; automated control systems; DC and AC motors and machines; industrial electronics; and programmable controllers.

To provide maximum flexibility in the Industrial Electricity/Motors and Controls program, evening courses are offered in options. A student wishing to receive a diploma in Industrial Electricity/Motors and Controls must complete all three options and DFT 103, PHY 1111, MAT 1101, MAT 1103, ENG 1101, and ENG 1102.

While students may enroll in this program any quarter, the four-quarter day sequence of courses shown in this program's plan of study is based on a full-time student enrolling in the fall quarter. Graduates receive a diploma.

Day Program ☐ 4 Quarters

		CLASS	HOURS		CREDIT
			LAB		
1	ELC 1101	Introduction to Electricity	4	6	6
	DFT 103	Technical Drawing	2	3	3
	MAT 1101	Applied Mathematics	5	0	5
	ENG 1101	Communication Skills I	3	0	3
2	ELC 1102	Electrical Wiring I	4	6	6
	ELC 1103	AC, Motor, and Transformer Theory	4	6	6
	MAT 1103	Applied Mathematics	5	0	5
	ENG 1102	Communication Skills II	3	0	3
3	ELC 1104	Electrical Wiring II	4	6	6
	ELC 1105	Electrical Control Systems	4	6	6
	ELC 1106	Blueprint Readings and NEC Calculations	5	0	5
	PHY 1111	Applied Science	3	2	4
4	ELC 1109	Maintenance and Troubleshooting	3	3	4
	ELC 1110	Electronic Control Systems	4	6	6
	ELN 1101	Industrial Electronics	3	6	5

Required Courses Credit Hours 73

Note: This sequence of courses is based on a full-time student beginning in the fall quarter. This sequence does not apply to students taking courses other than those listed in this plan of study.



Evening Options

Construction Electrician

		CLASS	HOURS		CREDIT
			LAB		
ELC 1101	Introduction to Electricity	4	6	6	
ELC 1102	Electrical Wiring I	4	6	6	
ELC 1104	Electrical Wiring II	4	6	6	
ELC 1106	Blueprint Readings and NEC Calculations	5	0	5	

Required Courses Credit Hours 23

Maintenance Electrician

ELC 1101	Introduction to Electricity	4	6	6	
ELC 1103	AC, Motor, and Transformer Theory	4	6	6	
ELC 1105	Electrical Control Systems	4	6	6	
ELC 1109	Maintenance and Troubleshooting	3	3	4	

Required Courses Credit Hours 22

Motor Control Electrician

ELC 1110	Electronic Control Systems	4	6	6	
ELN 1101	Industrial Electronics	3	6	5	

Required Courses Credit Hours 11

Industrial Management Technology



The Industrial Management Technology program teaches students how to function effectively in the supervisory positions in today's computer-oriented work centers. Training is offered in three primary areas of responsibility: personal management, personnel management, and resource management. Using case problems and on-site projects at local industries and businesses, the Industrial Management Technology program gives the student practical, hands-on experiences to complement classroom instruction.

In addition to preparing the individual to enter supervisory positions, the program provides an educational plan for upgrading or retraining and provides an opportunity for the individual seeking to fulfill professional or general interest needs.

The program combines courses in business and industrial management, production methods and schedules, inventory control, work analysis, motivation techniques, and human relations with related courses in communications, microcomputer applications, and report writing.

While students may enroll in this program any quarter, the four-quarter evening sequence of courses shown in the plan of study is based on a full-time student enrolling in the fall quarter. Students successfully completing all requirements earn a certificate in Industrial Management Technology.

Evening Program ■ 4 Quarters

		HOURS		
		CLASS	LAB	CREDIT
1				
ISC 130	Industrial Safety	3	0	3
ISC 232	Quality Control	3	2	4
BUS 236	Principles of Management	3	0	3
2				
ISC 220	Methods and Time Study	5	2	6
EDP 103	Introduction to Microcomputers	3	2	4
3				
ISC 226	Production Planning and Control	3	2	4
BUS 272	Principles of Supervision	3	0	3
PSY 110	General Psychology	3	0	3
4				
BUS 233	Personnel Management	3	0	3
ENG 120	Technical Report Writing	3	0	3

Required Courses Credit Hours 36

Note: This sequence of courses is based on a full-time student beginning in the fall quarter. This sequence does not apply to students taking courses other than those listed in this plan of study.

Machinist

A machinist is a skilled craftsperson who shapes metal by using machine tools and hand tools. To make precision parts from metal, a machinist selects the proper tools and materials to cut and shape metal to meet the size specifications stated on a blueprint or in written requirements.

The Machinist program gives individuals the opportunity to acquire the basic skills and related technical information necessary to become a machinist. The student learns to set up and operate the various machine tools found in a modern shop, learns to read blueprints, and learns to make the calculations required to produce precision parts. The program also offers training in using such state-of-the-art equipment as computer numerically controlled machine tools. In addition to using machine tools, the machinist must be able to use instruments to measure the accuracy of work and must also know the characteristics of various metals.

By developing machinist skills, an individual can open the door to a career with job security and good earning potential. Currently, the demand for machinists is high. New and expanding industries in the Triangle area need skilled machinists, and the demand for machinists is expected to continue to grow. Precision is the key to the work of a machinist. The challenge of creating precision metal parts can provide a rewarding career.

While students may enroll in this program any quarter, the four-quarter day and eight-quarter evening sequences of courses shown in the plan of study are based on a full-time student enrolling in the fall quarter. Graduates receive a diploma.



Day Program ☐ 4 Quarters

			CLASS	HOURS LAB	CREDIT
1					
	MEC 1101	Machine Shop Theory and Practice	2	6	4
	MEC 1102	Machine Shop Theory and Practice	2	6	4
	DFT 103	Technical Drawing	2	3	3
	MAT 1101	Applied Mathematics	5	0	5
	ENG 1101	Communication Skills I	3	0	3
2					
	MEC 1103	Machine Shop Theory and Practice	2	6	4
	MEC 1104	Machine Shop Theory and Practice	2	6	4
	DFT 1106	Blueprint Reading I: Mechanical	3	0	3
	MAT 1103	Applied Mathematics	5	0	5
	ENG 1102	Communication Skills II	3	0	3
3					
	MEC 1105	Machine Shop Theory and Practice	2	6	4
	MEC 1106	Machine Shop Theory and Practice	2	6	4
	DFT 1107	Blueprint Reading II: Mechanical	3	0	3
	PHY 1111	Applied Science	3	2	4
	MAT 1123	Machinist Mathematics	5	0	5
4					
	MEC 1107	Machine Shop Theory and Practice	2	6	4
	MEC 1108	Machine Shop Theory and Practice	2	6	4
	MEC 1109	Fundamentals of Computer Numerical Control	2	6	4
	MEC 1120	Topics in Manufacturing Technology	3	3	4
Required Courses Credit Hours					74

Evening Program ☒ 8 Quarters

			CLASS	HOURS LAB	CREDIT
1					
	MEC 1101	Machine Shop Theory and Practice	2	6	4
	MAT 1101	Applied Mathematics	5	0	5
	ENG 1101	Communication Skills I	3	0	3
2					
	MEC 1102	Machine Shop Theory and Practice	2	6	4
	DFT 103	Technical Drawing	2	3	3
3					
	MEC 1103	Machine Shop Theory and Practice	2	6	4
	DFT 1106	Blueprint Reading I: Mechanical	3	0	3
	ENG 1102	Communication Skills II	3	0	3
4					
	MEC 1104	Machine Shop Theory and Practice	2	6	4
	MAT 1103	Applied Mathematics	5	0	5
5					
	MEC 1105	Machine Shop Theory and Practice	2	6	4
	DFT 1107	Blueprint Reading II: Mechanical	3	0	3
	PHY 1111	Applied Science	3	2	4
6					
	MEC 1106	Machine Shop Theory and Practice	2	6	4
	MAT 1123	Machinist Mathematics	5	0	5
7					
	MEC 1107	Machine Shop Theory and Practice	2	6	4
	MEC 1120	Topics in Manufacturing Technology	3	3	4
8					
	MEC 1108	Machine Shop Theory and Practice	2	6	4
	MEC 1109	Fundamentals of Computer Numerical Control	2	6	4
Required Courses Credit Hours					74

Note: These sequences of courses are based on a full-time student beginning in the fall quarter. These sequences do not apply to students taking courses other than those listed in the plan of study.

Medical Office Technology

For students seeking diversity, challenge, and a role in the rapidly changing world of modern medicine, Durham Tech's Medical Office Technology program offers the opportunity to acquire skills and knowledge as a medical office professional.

The student will develop office skills in such basic areas as typewriting, shorthand, word processing, business communication, and machine dictation. These skills are complemented with courses in medical law and ethics, medical terminology, and medical records management.

Through this program, the student learns to process medical

documents; compile and record medical charts, reports, patient case histories, and correspondence; schedule medical appointments; and prepare and send bills to patients.

Curriculum graduates may find employment opportunities with physicians' offices, medical supply and equipment manufacturers, medical laboratories, hospitals, and other medical care settings.

While students may enroll in this program any quarter, the seven-quarter day and nine-quarter evening sequences of courses in the plan of study are based on a full-time student enrolling in the fall quarter. Graduates receive an Associate in Applied Science degree.

Day Program ☐ 7 Quarters

		CLASS	HOURS LAB	CREDIT
1				
SEC 101	Typewriting I	2	3	3
SEC 128	Medical Law and Ethics	3	0	3
BUS 101	Introduction to Business	5	0	5
ENG 101	Communication Skills	3	0	3
MAT 123	College Mathematics	5	0	5
2				
SEC 102	Typewriting II	2	3	3
SEC 112	Gregg Shorthand I	3	2	4
ACC 120	Accounting I	5	2	6
ENG 102	Communication Skills	3	0	3
	Technical Elective			
3				
SEC 103	Typewriting III	2	3	3
SEC 113	Gregg Shorthand II	3	2	4
SEC 125	Medical Records Management	3	2	4
EDP 103	Introduction to Microcomputers	3	2	4
ENG 103	Communication Skills	3	0	3
4				
SEC 114	Gregg Shorthand III	3	2	4
SEC 201	Typewriting IV	2	3	3
SEC 250	Medical Terminology	3	0	3
BUS 271	Office Systems Management	3	0	3
	General Education Elective			
5				
SEC 224	Medical Simulated Office Application	2	3	3
SEC 251	Medical Transcription	3	2	4
SEC 260	Word Processing I	3	2	4
SEC 284	Medical Insurance	3	0	3
SPH 120	Voice and Diction	3	0	3
6				
SEC 261	Word Processing II	3	2	4
SEC 280	Administrative Office Procedures	3	2	4
BUS 272	Principles of Supervision	3	0	3
EDP 205	Spreadsheet Applications	3	2	4
SOC 110	Principles of Sociology	3	0	3
7				
SEC 262	Word Processing III	1	4	3
SEC 270	Business Communication	3	0	3
SEC 290	Work Experience	1	20	3
EDP 125	Desktop Publishing	1	4	3

Required Courses	Credit Hours	113
General Education Elective	Credit Hours	3
Technical Elective	Credit Hours	3

Total Credit Hours Required for Graduation 119

Evening Program ☒ 9 Quarters

		CLASS	HOURS LAB	CREDIT
1				
SEC 101	Typewriting I	2	3	3
SEC 128	Medical Law and Ethics	3	0	3
BUS 101	Introduction to Business	5	0	5
ENG 101	Communication Skills	3	0	3
2				
SEC 102	Typewriting II	2	3	3
SEC 112	Gregg Shorthand I	3	2	4
MAT 123	College Mathematics	5	0	5
ENG 102	Communication Skills	3	0	3
3				
SEC 103	Typewriting III	2	3	3
SEC 113	Gregg Shorthand II	3	2	4
ACC 120	Accounting I	5	2	6
ENG 103	Communication Skills	3	0	3
4				
SEC 114	Gregg Shorthand III	3	2	4
BUS 271	Office Systems Management	3	0	3
	Technical Elective			
5				
SEC 125	Medical Records Management	3	2	4
SEC 201	Typewriting IV	2	3	3
SEC 250	Medical Terminology	3	0	3
SPH 120	Voice and Diction	3	0	3
6				
SEC 224	Medical Simulated Office Application	2	3	3
SEC 251	Medical Transcription	3	2	4
EDP 103	Introduction to Microcomputers	3	2	4
SOC 110	Principles of Sociology	3	0	3
7				
SEC 260	Word Processing I	3	2	4
SEC 280	Administrative Office Procedures	3	2	4
SEC 284	Medical Insurance	3	0	3
BUS 272	Principles of Supervision	3	0	3
8				
SEC 261	Word Processing II	3	2	4
SEC 270	Business Communication	3	0	3
EDP 205	Spreadsheet Applications	3	2	4
	General Education Elective			
9				
SEC 262	Word Processing III	1	4	3
SEC 290	Work Experience	1	20	3
EDP 125	Desktop Publishing	1	4	3

Required Courses	Credit Hours	113
General Education Elective	Credit Hours	3
Technical Elective	Credit Hours	3

Total Credit Hours Required for Graduation 119

Note: These suggested sequences of courses are based on a full-time student beginning in the fall quarter. These sequences do not apply to students taking courses other than those listed in this plan of study.

Microcomputer Systems Technology

The advent of low-cost, powerful microcomputers has brought hundreds of business, industry, and government organizations in our geographic area into the computer age. Many of these organizations seek qualified microcomputer specialists to help select hardware and software, train personnel, and convert manual systems to computer applications. The Microcomputer Systems Technology program trains students in the skills needed to fill these key positions.

Students learn to use an array of software—including spreadsheet, database, and communication and word processing packages—to solve common accounting, finance, forecasting, marketing, sales, scheduling, and statistical problems.

Day Program □ 7 Quarters

		CLASS	HOURS		CREDIT
			LAB		
1	EDP 103	Introduction to Microcomputers	3	2	4
	EDP 107	Programming Logic	3	2	4
	SEC 101	Typewriting I	2	3	3
	MAT 121	Algebra II	5	0	5
	ENG 101	Communication Skills	3	0	3
2	EDP 113	Microcomputer Support Software	3	2	4
	EDP 140	Operating Systems	3	2	4
	SEC 260	Word Processing I	3	2	4
	MAT 137	Computer Mathematics	5	0	5
	ENG 102	Communication Skills	3	0	3
3	EDP 125	Desktop Publishing	1	4	3
	EDP 151	C Language I	3	2	4
	ACC 120	Accounting I	5	2	6
	ENG 103	Communication Skills	3	0	3
4	EDP 152	C Language II	3	2	4
	EDP 205	Spreadsheet Applications	3	2	4
	ACC 121	Accounting II	5	2	6
	SPH 115	Introduction to Public Speaking	3	0	3
5	EDP 127	Business Graphics	3	2	4
	EDP 180	Microcomputer Database Management	3	2	4
	EDP 235	Advanced Spreadsheet Applications	3	2	4
	EDP 251	C Language III	3	2	4
6	EDP 185	Microcomputer Hardware and Systems	3	2	4
	EDP 230	Microcomputer Networking	3	2	4
	EDP 237	Advanced Database Management	3	2	4
		Technical Elective			
7	EDP 290	Work Experience	1	10	2
	PSY 110	General Psychology	3	0	3
	ENG 120	Technical Report Writing	3	0	3
		Technical Elective			

Required Courses Credit Hours 108
Technical Electives Credit Hours 8

Total Credit Hours Required for Graduation 116

Evening Program ■ 9 Quarters

		CLASS	HOURS		CREDIT
			LAB		
1	EDP 103	Introduction to Microcomputers	3	2	4
	EDP 107	Programming Logic	3	2	4
	SEC 101	Typewriting I	2	3	3
	MAT 121	Algebra II	5	0	5
2	EDP 113	Microcomputer Support Software	3	2	4
	EDP 140	Operating Systems	3	2	4
	MAT 137	Computer Mathematics	5	0	5
	ENG 101	Communication Skills	3	0	3
3	EDP 125	Desktop Publishing	1	4	3
	PSY 110	General Psychology	3	0	3
	SEC 260	Word Processing I	3	2	4
	ENG 102	Communication Skills	3	0	3
4	EDP 151	C Language I	3	2	4
	ACC 120	Accounting I	5	2	6
	ENG 103	Communication Skills	3	0	3
5	EDP 127	Business Graphics	3	2	4
	EDP 152	C Language II	3	2	4
	ACC 121	Accounting II	5	2	6
6	EDP 180	Microcomputer Database Management	3	2	4
	EDP 205	Spreadsheet Applications	3	2	4
	EDP 251	C Language III	3	2	4
	SPH 115	Introduction to Public Speaking	3	0	3
7	EDP 230	Microcomputer Networking	3	2	4
	EDP 237	Advanced Database Management	3	2	4
		Technical Elective			
8	EDP 235	Advanced Spreadsheet Applications	3	2	4
	EDP 290	Work Experience	1	10	2
	ENG 120	Technical Report Writing	3	0	3
9	EDP 185	Microcomputer Hardware and Systems	3	2	4
		Technical Elective			

Required Courses Credit Hours 108
Technical Electives Credit Hours 8

Total Credit Hours Required for Graduation 116

Note: These suggested sequences of courses are based on a full-time student beginning in the fall quarter. These sequences do not apply to students taking courses other than those listed in the plan of study.

Microelectronics Technology



Microelectronics focuses on smaller and smaller electronic components performing increasingly complex electronic functions at constantly increasing speeds and decreasing costs. In fact, most technological advances during the past decade have depended largely on microelectronic applications. Small, reliable microelectronic sensing and control devices are essential elements in products ranging from communications satellites and point-of-sale terminals in supermarkets to video games and digital watches. A microprocessor ("computer on a chip"), for example, can provide a machine with basic decision-making ability, memory for instructions, and self-adjusting controls. The microelectronics revolution has had a major impact on every segment of our economy.

The Microelectronics Technology program provides the student with a comprehensive working knowledge of semiconductor manufacturing processes, electronic theory and practical applications, and scientific laboratory skills. Classroom instruction includes courses in digital electronics, semiconductor physics, semiconductor device analysis and layout, microprocessor fundamentals, and computer graphics.

In the semiconductor lab, students are introduced to the practice of basic scientific laboratory skills, experimental procedures, semiconductor lab measurements, data analysis, quality control, and detailed record-keeping. The semiconductor lab is equipped with the state-of-the-art equipment used in measuring, testing, and inspecting microelectronic circuits.

The Microelectronics Technology program trains technicians

who assist engineers in the areas of process and design technology, materials analysis, quality control, and manufacturing.

While students may enroll in this program any quarter, the seven-quarter day sequence of courses shown in the plan of study is based on a full-time student enrolling in the fall quarter. Graduates of the Microelectronics Technology program receive an Associate in Applied Science degree. Courses that comprise the pre-microelectronics sequence are offered during the spring and summer quarters.

Day Program ☐ 7 Quarters

		HOURS		
		CLASS	LAB	CREDIT
1				
ELN 101	DC Circuit Analysis	4	6	7
MAT 145	Linear Algebra	5	0	5
ENG 101	Communication Skills	3	0	3
2				
ELN 102	AC Circuit Analysis	4	6	7
DFT 103	Technical Drawing	2	3	3
MAT 146	Trigonometry	5	0	5
ENG 102	Communication Skills	3	0	3
3				
ELN 105	Introduction to Active Devices	4	4	6
CHM 140	Chemistry	4	2	5
MAT 147	Nonlinear Algebra and Logic	5	0	5
4				
SCT 101	Introduction to Semiconductor and Microelectronics Technology	5	0	5
EDP 115	Pascal	3	2	4
ISC 130	Industrial Safety	3	0	3
ENG 103	Communication Skills	3	0	3
5				
ISC 232	Quality Control	3	2	4
PHY 120	Semiconductor Physics	5	0	5
PSY 110	General Psychology	3	0	3
ENG 120	Technical Report Writing	3	0	3
	Technical Elective			
6				
SCT 200	Microelectronics Processing and Device Design	4	2	5
ELN 240	Digital Electronics	4	6	7
DFT 205	Computer Graphics	2	3	3
	Technical Elective			
7				
SCT 210	Semiconductor Device Analysis and Physical Layout	3	4	5
ELN 270	Microprocessor Fundamentals	4	6	7
	General Education Elective			

Required Courses	Credit Hours	106
General Education Elective	Credit Hours	3
Technical Electives	Credit Hours	4

Total Credit Hours Required for Graduation 113

Note: The suggested sequence of courses is based on a full-time student beginning in the fall quarter. This sequence does not apply to students taking courses other than those listed in this plan of study.

Pre-Microelectronics Technology

		CLASS	HOURS LAB	CREDIT	
1					
	MAT 120	Algebra I	5	0	5
	MAT 121	Algebra II	5	0	5
	ELC 1101	Introduction to Electricity	4	6	6

Military Science Technology

The Military Science Technology curriculum provides active duty personnel, National Guard, and reserve component service-members the educational training needed to meet academic requirements for retention and/or promotion within the military.

Students take classes in history, military science, supervision, management, mathematics, and communications skills. Courses in this program are offered at Durham Technical Community College by Durham Tech and by Central Carolina Community College. Central Carolina, in cooperation with Durham Tech and seven other community colleges, coordinates the program and awards the associate degree in Military Science Technology.

Listed here are the curriculum courses that students take at Durham Tech. Courses offered by Durham Tech are scheduled during the day, in the evenings, and on weekends. Classes conducted by Central Carolina at Durham Tech are generally scheduled for the fourth weekend of each month. Students must apply to both institutions for admission to the curriculum and for veterans' benefits.

Throughout the program, students are trained to better understand the nation's government and operation of the military; understand the management and supervision of people within an organization; and communicate well orally and in writing. These skills and knowledge will enhance military career opportunities for graduates.

Students may enroll in the program any quarter. Graduates receive an Associate in Applied Science degree from Central Carolina Community College.

Weekend/Day/Evening Program 6 Quarters

		HOURS		CREDIT
		CLASS	LAB	
1				
*MIL 101	Military Science I	5	0	5
*POL 104	International Relations	5	0	5
ENG 101	Communication Skills	3	0	3
2				
*MIL 102	Military Science II	5	0	5
*PSY 140	Principles of Counseling	5	0	5
ENG 102	Communication Skills	3	0	3
3				
*MIL 103	Military Science III	5	0	5
*MIL 104	Leadership	3	0	3
BUS 233	Personnel Management	3	0	3
SPH 115	Introduction to Public Speaking	3	0	3
ENG 120	Technical Report Writing	3	0	3
4				
BUS 272	Principles of Supervision	3	0	3
POL 201	American Government	5	0	5
PSY 151	Introduction to Psychology	5	0	5
*SOC 220	Armed Forces and the Society	5	0	5
5				
*MIL 201	Literature of Combat	3	0	3
BUS 236	Principles of Management	3	0	3
EDP 103	Introduction to Microcomputers	3	2	4
*POL 201	World and Regional Geography	5	0	5
6				
*MIL 202	Military Science Elective			
*MIL 203	Military Science Elective			
*MIL 204	Military Science Elective			
	Elective			

Required Courses	Credit Hours	76
Mathematics Electives	Credit Hours	10
Military Science Electives	Credit Hours	9
Elective	Credit Hours	3

Total Credit Hours Required for Graduation 98

*These courses are offered at Durham Technical Community College by Central Carolina Community College.

Optical Laboratory Mechanics



The Optical Laboratory Mechanics program is a one-year vocational program that trains the student to fabricate eyewear from a prescription, edge and bevel lenses, assemble lenses and frames, and place the eyewear in standard alignment, ready for delivery to the consumer.

The program includes theoretical and practical courses covering a variety of technical skills such as beveling, edging, blocking, mounting, and framing lenses.

Retail dispensing stores, wholesale laboratories, hospital eye clinics, and eye doctors desiring to do their own dispensing employ optical laboratory mechanics.

The program is offered at the Federal Correctional Institution in Butner, N.C., where a fully equipped laboratory is available. Optical Laboratory Mechanics is a day program that may be completed in four quarters. Graduates receive certificates.

Day Program ☐ 4 Quarters

			HOURS		
			CLASS	LAB	CREDIT
1					
OLM 1101	Introduction to Optics	3	0	3	
OLM 1102	Spectacle Fabrication	0	3	1	
OLM 1142	Structures and Functions of the Eye	3	0	3	
MAT 1040	Technical Mathematics	5	0	5	
2					
OLM 1103	Basic Lens Designs	3	0	3	
OLM 1111	Basic Frame and Lens Mechanics	0	6	2	
OLM 1131	Frame and Lens Types	3	0	3	
OLM 1140	Properties of Light	3	0	3	
3					
OLM 1104	Advanced Lens Designs	3	0	3	
OLM 1112	Multifocal Lens Mechanics	0	6	2	
OLM 1120	Basic Surfacing	3	3	4	
4					
OLM 1113	Special Lens Mechanics	0	6	2	
OLM 1114	Production Laboratory	0	6	2	
OLM 1133	Optical Laboratory Management	3	0	3	

Required Courses Credit Hours 39

Opticianry



The Opticianry program is a two-year program of study which teaches students to become opticians. Opticians receive lens prescriptions from eye doctors, determine the size and style of eyeglasses desired by the customer, grind lenses and shape them to fit into an eyeglass frame, and adjust finished glasses to fit the customer. The graduate acquires competencies in all phases of opticianry including surfacing, which consists of blocking, fining, polishing, and inspecting both plastic and glass single-vision/multifocal lenses; benchwork, which includes hand beveling, safety beveling, heat treating, chemical tempering, tinting, mounting, and framing lenses; dispensing, which includes measuring, adapting, and fitting both eyeglasses and contact lenses to the patient.

The curriculum also includes courses in communication skills, social sciences, microcomputer fundamentals, and business, which augment the student's technical instruction and provide a well-rounded educational background.

An important facet of the Opticianry curriculum is the student practicum, which allows the individual student to practice competencies and skills learned in the classroom. Practicum activities include adjusting and repairing eyeglasses at medical centers, retail optical shops, senior citizens centers, and convalescent centers in the greater Durham area.

While students may enroll in this program any quarter, the

seven-quarter day sequence of courses shown in the plan of study is based on a full-time student enrolling in the fall quarter. Upon completion of the Opticianry program, the Associate in Applied Science degree in Opticianry is conferred and satisfies the formal educational requirements necessary to qualify for the licensing examination given by the North Carolina State Board of Opticians.

The Opticianry program is accredited by the Commission on Opticianry Accreditation and approved by the North Carolina State Board of Opticians.

Day Program ☐ 7 Quarters

		HOURS		
		CLASS	LAB	CREDIT
1				
OPT 101	Introduction to Opticianry	4	0	4
OPT 111	Spherical Lens Surfacing	0	6	2
OPT 121	Anatomy of the Eye	2	0	2
EDP 103	Introduction to Microcomputers	3	2	4
PSY 110	General Psychology	3	0	3
MAT 140	Algebra	5	0	5
	Technical Elective			
2				
OPT 102	Single-Vision Lens Designs	4	0	4
OPT 112	Sphero-Cylindrical Lens Surfacing	0	6	2
OPT 122	Physiology of the Eye	2	0	2
PHY 140	Physics	3	2	4
MAT 141	Geometry and Trigonometry	5	0	5
3				
OPT 103	Multifocal Lens Designs	4	0	4
OPT 113	Multifocal Lens Surfacing	0	6	2
OPT 141	Physical Optics	3	2	4
CHM 140	Chemistry	4	2	5
ENG 101	Communication Skills	3	0	3
4				
OPT 104	Advanced Theoretical Optics	2	0	2
OPT 114	Basic Spectacle Finishing	0	6	2
OPT 142	Geometrical Optics	3	2	4
BUS 235	Small Business Management	3	0	3
ENG 102	Communication Skills	3	0	3
5				
OPT 214	Multifocal Finishing	0	6	2
OPT 231	Frame and Lens Dispensing	5	3	6
OPT 261	Rigid Contact Lenses	3	3	4
ENG 103	Communication Skills	3	0	3
6				
OPT 206	Special Lens Designs	4	0	4
OPT 215	Special Lens Finishing	0	6	2
OPT 232	Multifocal Lens Dispensing	4	4	6
OPT 262	Flexible Contact Lenses	3	3	4
ENG 120	Technical Report Writing	3	0	3
7				
OPT 216	Lens Finishing Proficiency	0	6	2
OPT 233	Special Dispensing	4	4	6
OPT 263	Special Contact Lenses	3	0	3
OPT 282	Opticianry Clinical	0	6	2
	General Education Elective			

Required Courses	Credit Hours	116
General Education Elective	Credit Hours	3
Technical Elective	Credit Hours	3

Total Credit Hours Required for Graduation 122

Note: This suggested sequence of courses is based on a full-time student beginning in the fall quarter. This sequence does not apply to students taking courses other than those listed in this plan of study.

Paralegal Technology



The Paralegal Technology program prepares the student to work under the general direction of lawyers, at times assisting them in conducting complicated and difficult tasks. Paralegals, also called legal assistants, are trained to perform independent legal work under the supervision of a lawyer, supervise legal office personnel in their work for the lawyer, and search out information and court facts for the lawyer. The program includes general subjects like English, accounting, and psychology as well as specialized legal courses that include court systems, real property, and commercial law. Some of these specialized courses, such as title abstracting, take place at the Durham and Orange County Courthouses.

Paralegal Technology program graduates may assist lawyers in probate matters, conducting investigations, searching public records, preparing tax forms, serving and filing legal documents, bookkeeping, conducting research, and providing office manage-

ment. Employment opportunities are excellent for paralegal graduates, who will find jobs in law firms, government agencies, and corporations.

While students may enroll in this program any quarter, the eight-quarter evening sequence of courses shown in the plan of study is based on a full-time student enrolling in the fall quarter. Graduates receive an Associate in Applied Science degree.

Evening Program ■ 8 Quarters

		HOURS		
		CLASS	LAB	CREDIT
1				
LEX 101	Real Property	5	0	5
LEX 105	Introduction to Law	5	0	5
ENG 101	Communication Skills	3	0	3
2				
LEX 110	Trial Preparation	5	0	5
LEX 112	Title Abstracting	3	2	4
ENG 102	Communication Skills	3	0	3
3				
LEX 120	Litigation	5	0	5
CJC 210	Criminal Investigation	5	0	5
PSY 110	General Psychology	3	0	3
ENG 103	Communication Skills	3	0	3
4				
LEX 122	Real Estate Transactions	5	0	5
EDP 103	Introduction to Microcomputers	3	2	4
ENG 120	Technical Report Writing	3	0	3
	Technical Elective			
5				
LEX 201	Legal Research	3	2	4
LEX 205	Estate Administration	5	0	5
MAT 123	College Mathematics	5	0	5
6				
LEX 210	Commercial Law I	5	0	5
LEX 212	Legal Writing	5	0	5
	Technical Elective			
7				
LEX 220	Commercial Law II	5	0	5
LEX 225	Law Office Management	5	0	5
CJC 270	Constitutional Law	5	0	5
	General Education Elective			
8				
LEX 230	Family Law	5	0	5
ACC 120	Accounting I	5	2	6
	Technical Elective			

Required Courses	Credit Hours	103
General Education Elective	Credit Hours	3
Technical Electives	Credit Hours	9

Total Credit Hours Required for Graduation 115

Note: This suggested sequence of courses is based on a full-time student beginning in the fall quarter. This sequence does not apply to students taking courses other than those listed in this plan of study.

Pharmacy Technology



The Pharmacy Technology program trains students to become pharmacy technicians. These allied health specialists are employed in a pharmacy and perform a variety of technical duties related to preparing and dispensing drugs in accordance with standard procedures and laws while under the supervision of a registered pharmacist. Pharmacy technicians are trained to transcribe physicians' medication orders, fill orders to be checked by pharmacists, and deliver them. They prepare admixtures of intravenous solutions, replenish drugs, maintain patient profile records, prepare bulk formulations, assist with over-the-counter drugs and health aids, and perform clerical duties, including processing insurance forms and forms required by third-party payees. Pharmacy technicians are vital assets to hospital and community pharmacists because their training allows them to perform technical pharmaceutical procedures enabling pharmacists to direct their attention to professional tasks.

At Durham Technical Community College, the student receives training in pharmacology and hospital pharmacy procedures. Additional study includes community pharmacy procedures, pharmaceutical math, microcomputers, pathophysiology, and typing. The student practices procedural skills in a simulated pharmacy technician laboratory. Clinical practice in hospital pharmacy is received through the combined efforts of Duke University Medical Center, Durham County General Hospital, Veterans Administration Medical Center, University of North Carolina Hospitals, Rex Hospital, and Lincoln Community Health Center.

Many area hospitals are rapidly expanding their pharmacy services to meet the increasing need for higher quality patient care and to conform to governmental regulations. Such expansion has created a greater need for technical support personnel to carry out the routine functions in dispensing drugs to hospital inpatients and ambulatory patients. Pharmacy Technology graduates are

prepared to meet this need, and job opportunities for these graduates remain excellent. In addition to hospitals, graduates may be also employed by nursing homes, retail drug stores, drug manufacturers, research laboratories, or wholesale drug companies.

While students may enroll in this program any quarter, the three-quarter day sequence of courses shown in the plan of study is based on a full-time student enrolling in the fall or spring quarter. Graduates receive a certificate.

Durham Technical Community College is accredited for pharmacy technician training by the American Society of Hospital Pharmacists.

Day Program ☐ 3 Quarters

		HOURS				
		CLASS	LAB	CLINICAL	CREDIT	
1	PHM 101	Introduction to Pharmacy	3	0	0	3
	PHM 105	Hospital Pharmacy I	3	2	0	4
	MAT 135	Pharmaceutical Mathematics	5	0	0	5
	MED 120	Pathophysiology	3	0	0	3
	SEC 111	Pharmacy Typewriting	2	3	0	3
2	PHM 110	Hospital Pharmacy II	3	4	0	5
	PHM 115	Pharmacology I	3	0	0	3
	PHM 120	Community Pharmacy	3	4	0	5
	EDP 103	Introduction to Microcomputers	3	2	0	4
	PHM 125	Pharmacology II	3	0	0	3
3	PHM 130	Pharmacy Clinical	0	0	24	8
	PHM 140	Pharmacy Seminar	2	0	0	2

Required Courses Credit Hours 48

Note: This sequence of courses is based on a full-time student beginning in the fall or spring quarter. This sequence does not apply to students taking courses other than those listed in this plan of study.

Phlebotomy



Durham Technical Community College and Wake Technical Community College have joined together to offer a one-quarter program to train phlebotomy technicians in the Triangle area. The phlebotomy technician curriculum prepares the graduate to draw blood specimens from patients for testing and analysis. The job involves duties related to the preparation and maintenance of equipment used in obtaining blood specimens; the use of appropriate communication skills when working with patients; the selection of venipuncture sites; the care of blood specimens; and the entry of the testing process into the computer, as well as other clerical duties associated with keeping records of blood tests.

The program is offered at Durham Tech every fall quarter, and at Wake Tech every spring quarter. Clinical training takes place at Durham County General Hospital, Duke University Medical Center, Rex Hospital, University of North Carolina Hospitals, and Wake Medical Center.

General admission requirements for phlebotomy applicants are the same as for any curriculum student applying at the college where the program is offered. The program is approved by the National Accrediting Agency for Clinical Laboratory Science. Graduates receive a certificate.

Day Program ☐ 1 Quarter (Fall)

		HOURS				
		CLASS	LAB	CLINICAL	CREDIT	
1	PBT 1101	Basic Phlebotomy Concepts	9	2	0	10
	PBT 1105	Phlebotomy Clinical Experience	0	0	12	4
	PSY 108	Human Behavior	3	0	0	3
	Required Courses		Credit Hours		17	

Practical Nursing



The Practical Nursing program prepares students to care for patients with a variety of common medical-surgical problems in various stages of illness. The licensed practical nurse is dedicated to helping assess the patient's physical and mental health, including the patient's reaction to illnesses and treatment regimens; recording and reporting the results of the nursing assessment; participating in implementing the health care plan developed for the patient by other authorized health care professionals; reinforcing the teaching and counseling of a registered nurse, licensed physician, or dentist; and recording and reporting the nursing care rendered and the patient's response to that care.

Approved by the North Carolina Board of Nursing, this one-year program involves both classroom and clinical activities. The program focuses on theory and practice in a broad range of nursing activities. These activities encompass direct patient care in relatively stable nursing situations. In addition to instruction in nursing care, students complete related general education courses. They are also introduced to microcomputers. Formal classroom study takes place at Durham Technical Community College. Practical experience is gained through clinical courses planned to follow theory and conducted under the instructor's supervision. Clinical experiences take place at Duke University Medical Center, Durham County General Hospital, and other area health care facilities.

Program graduates are awarded diplomas in Practical Nursing and are eligible to take the National Council Licensure Examination (NCLEX-PN), which is required for practice as a practical nurse. Licensed practical nurses are employed in hospitals,

nursing homes, extended-care units, clinics, physicians' and dentists' offices, and other health care agencies.

Classes are offered during the day. The program may be completed in four quarters. New students may enroll in the fall and spring quarters.

Day Program ☐ 4 Quarters

		HOURS			
		CLASS	LAB	CLINICAL	CREDIT
1					
NUR 1101	Fundamentals of Nursing	6	6	0	8
BIO 120	Anatomy and Physiology	4	2	0	5
NUT 101	Nutrition and Diet Therapy	3	0	0	3
PHM 1101	Pharmacology I	2	3	0	3
EDP 103	Introduction to Microcomputers	3	2	0	4
2					
NUR 1104	Medical-Surgical Nursing I	4	3	0	5
NUR 1107	Maternal-Child Health I	5	0	0	5
NUR 1109	Clinical Experience	0	0	12	4
PHM 1102	Pharmacology II	4	0	0	4
3					
NUR 1105	Medical-Surgical Nursing II	7	0	0	7
NUR 1108	Maternal-Child Health II	6	0	0	6
NUR 1114	Clinical Experience	0	0	15	5
PSY 110	General Psychology	3	0	0	3
4					
NUR 1106	Medical-Surgical Nursing III	6	0	0	6
NUR 1112	Nursing Seminar	4	0	0	4
NUR 1115	Clinical Experience	0	0	15	5
ENG 1101	Communication Skills I	3	0	0	3

Required Courses Credit Hours 80

Note: This sequence of courses is based on a full-time student beginning in the fall or spring quarter. This sequence does not apply to students taking courses other than those listed in this plan of study.

Real Estate Appraisal



The Real Estate Appraisal program helps students develop the ability to determine the value of various types of property, both commercial and residential. The program satisfies the pre-licensing and pre-certification appraisal education requirements approved by the North Carolina Real Estate Commission.

The program consists of six courses covering topics such as introduction to real estate appraisal, valuation principles and appraisal methods, physical property analysis methods, and neighborhood analysis methods. Students will find that a strong math background is helpful, especially for program coursework in advanced income capitalization procedures.

The Real Estate Appraisal program prepares students to take appraisal examinations given by the North Carolina Real Estate Commission. Students who pass the exams may use the designation "state-licensed" or "state-certified" appraiser, and will be qualified to perform appraisals in federally related transactions.

Durham Tech awards a certificate to graduates of the one-year, evening program.

Evening Program ■ 3 Quarters

		CLASS	HOURS LAB	CREDIT
1				
BUS 170	Introduction to Real Estate Appraisal (R-1)	3	0	3
BUS 171	Valuation Principles and Procedures (R-2)	3	0	3
2				
BUS 172	Applied Residential Property Valuation (R-3)	3	0	3
BUS 175	Introduction to Income Property Appraisal (G-1)	3	0	3
3				
BUS 176	Advanced Income Capitalization Procedures (G-2)	3	0	3
BUS 177	Applied Income Property Valuation (G-3)	3	0	3
		Required Courses	Credit Hours	18

Note: This sequence of courses is based on a full-time student beginning in the fall quarter.

Real Estate Technical Specialty



The Real Estate Technical Specialty program prepares students for careers in real estate brokerage and sales. The program satisfies the pre-licensing education requirements, as approved by the North Carolina Real Estate Commission, needed by prospective real estate salespersons and real estate brokers.

Students have the opportunity to gain knowledge of real estate closings, financing, agency relationships, legal issues, and marketing techniques. Upon completion of the real estate fundamentals course, students may sit for the Commission's real estate licensing examination. Students who successfully complete all coursework in the Real Estate Technical Specialty program may apply to take the Commission's real estate brokerage licensing exam.

The Real Estate Technical Specialty program is a two-quarter sequence of courses offered in the evening. Graduates of the program receive a certificate.

Evening Program ■ 2 Quarters

		CLASS	HOURS		CREDIT
			LAB		
1	BUS 161	Real Estate Math	3	0	3
	BUS 162	Fundamentals of Real Estate: Salesman	6	0	6
2	BUS 163	Real Estate Brokerage Operations	3	0	3
	BUS 164	Real Estate Law	3	0	3
	BUS 165	Real Estate Finance	3	0	3

Required Courses Credit Hours 18

Residential Carpentry and Preservation



The carpenter is a highly skilled worker who translates building plans into usable space. New construction is always in demand, and rising costs create a demand for workers who understand the preservation and renewal of existing buildings and who are skilled in these areas.

Carpenters need a wide range of skills to take a project from layout to end product. Supervisors, project foremen, and builders often start their careers as carpenters. To advance, the carpenter must have a command of building fundamentals such as math, blueprint reading, tool safety and usage, building layout, foundations, framing, roofing, exterior and interior finishes, architectural style, recording historic sites, building inspection, and construction management.

The restoration and preservation of existing buildings is a growing field, and carpentry skills are basic to restoration. In addition to carpentry skills, a restoration carpenter understands the goals of preservation and the skills of conservation. Conservation skills focus on identifying what is worth saving and applying both traditional and modern methods of preserving buildings and materials. This skilled technician bridges the gap between old and new technology and building methods. In Durham Technical Community College's Residential Carpentry and Preservation curriculum, traditional and new skills are blended to develop a well-rounded craftsman.

Students completing the entire program of study receive a certificate in Residential Carpentry and Preservation. Students may also choose the residential carpentry option, which allows them to complete 30 credit hours and receive a certificate of completion in Residential Carpentry. Classes are offered in the evenings.

Evening Program ■ 4 Quarters

		HOURS		
		CLASS	LAB	CREDIT
1				
HPT 1101	Introduction to Preservation	5	0	5
CAR 1101	Wood and Woodworking Tools	3	6	5
DFT 1118	Architectural Blueprint Reading	3	0	3
2				
HPT 1103	History of Building Technology	3	0	3
HPT 1106	Traditional Carpentry and Restoration	1	6	3
CAR 1102	Foundations and Floor Framing	3	6	5
CAR 1110	Construction Materials	3	0	3
3				
HPT 1105	Masonry and Plaster	1	6	3
CAR 1103	Wall and Roof Framing	3	6	5
4				
HPT 1109	Finishes and Protective Coatings	2	3	3
HPT 1110	Restoration Workshop	1	9	4
CAR 1104	Exterior and Interior Finish	3	6	5
CAR 1111	Renovation Operations	4	0	4

Required Courses Credit Hours 51

To provide maximum flexibility, the following program options are available:

Option A: Certificate in Residential Carpentry and Preservation.
Required Courses: All courses listed above.

Option B: Certificate in Residential Carpentry (30 Credit Hours).
Required Courses: CAR 1101, CAR 1102, CAR 1103, CAR 1104, CAR 1110, CAR 1111, DFT 1118.

Respiratory Care Technician



The respiratory care technician is an allied health professional who works in conjunction with respiratory care practitioners and/or physicians. The technician functions as part of the health care team to treat and care for patients with breathing disorders. Under the supervision of a respiratory care practitioner or physician, the technician is expected to adjust or modify therapeutic techniques within well-defined procedures based on a limited range of patient responses.

The Respiratory Care Technician program includes classroom instruction, clinical laboratory, and in-hospital clinical practice. The clinical laboratory provides training and evaluation for skills learned and demonstrated during lecture sessions. The clinical practice phase of the program is conducted at local area hospitals and is administered on a competency-based educational approach to allow mastery of each skill area.

While students may enroll in this program any quarter, the four-quarter sequence of courses shown in the plan of study is based on a full-time student enrolling in the fall quarter. Academic classes are conducted during the afternoon and evening hours, and clinical rotations are conducted during the day and in the evening. The program is designed to interest those individuals currently working in the respiratory care field as trainees or assistants or those who wish to enter the respiratory care job market after one year of preparation. Upon completing the technician program, the student is awarded a diploma, which satisfies the educational requirements of the National Board for Respiratory Care and allows the graduate technician to sit for the National Certification Examination leading to the credential of Certified Respiratory Therapy Technician (CRTT).

The Respiratory Care Technician program is accredited by the American Medical Association in collaboration with the Joint Review Committee for Respiratory Therapy Education.

Day/Evening Program ☒ 4 Quarters

		HOURS			
		CLASS	LAB	CLINICAL	CREDIT
1					
RTH 101	Basic Therapy	4	2	0	5
RTH 111	Technical Clinical I	0	0	6	2
SCI 130	Introduction to Applied Science	4	2	0	5
MAT 131	Integrated College Mathematics	5	0	0	5
2					
RTH 102	Therapy II	4	2	0	5
RTH 112	Technical Clinical II	0	0	15	5
BIO 131	Anatomy and Physiology	4	2	0	5
ENG 101	Communication Skills	3	0	0	3
3					
RTH 103	Therapy III	4	2	0	5
RTH 113	Technical Clinical III	0	0	15	5
BIO 132	Microbiology	4	2	0	5
ENG 120	Technical Report Writing	3	0	0	3
MED 130	Pharmacology	3	0	0	3
4					
RTH 104	Therapy IV	4	2	0	5
RTH 114	Technical Clinical IV	0	0	24	8
BIO 133	Pathophysiology	4	0	0	4

Required Courses Credit Hours 73

Note: This sequence of courses is based on a full-time student beginning in the fall quarter. This sequence does not apply to students taking courses other than those listed in this plan of study.

Respiratory Care Technology

The respiratory care practitioner is an allied health specialist who treats, manages, controls, and cares for patients with deficiencies and abnormalities related to breathing and associated organs. Because their training enables them to perform specific testing techniques used in monitoring, evaluating, and treating their patients, respiratory care practitioners are frequently required to exercise considerable independent, clinical judgment in the respiratory care of patients under the direct or indirect supervision of a physician.

In addition to managing patients, the respiratory care practitioner supervises technicians and junior respiratory care practitioners. Furthermore, the respiratory care practitioner is capable of serving as a technical resource person to the physician with regard to current practices in respiratory care, and to the hospital staff concerning effective and safe methods for administering respiratory care.

The Respiratory Care Technology program includes classroom instruction, clinical laboratory, and in-hospital clinical practice. The clinical laboratory provides training and evaluation for skills learned and demonstrated during lecture sessions. The program's clinical phase is conducted at local area hospitals and is administered on a competency-based educational approach to allow mastery of each skill.

While students may enroll in this program any quarter, the seven-quarter day and evening sequence of courses shown in the plan of study is based on a full-time student enrolling in the fall quarter. The Respiratory Care Technology program has academic classes conducted during the day and clinical rotations scheduled during the day and in the evening. The graduate is awarded an Associate in Applied Science degree, which satisfies the educational requirements of the National Board for Respiratory Care and allows the graduate to sit for the National Registry Examinations leading to the credential of Registered Respiratory Therapist (RRT).

The Respiratory Care Technology program is accredited by the American Medical Association in collaboration with the Joint Review Committee for Respiratory Therapy Education.

Day/Evening Program ■ 7 Quarters

		HOURS			
		CLASS	LAB	CLINICAL	CREDIT
1					
RTH 101	Basic Therapy	4	2	0	5
RTH 111	Technical Clinical I	0	0	6	2
SCI 130	Introduction to Applied Science	4	2	0	5
MAT 131	Integrated College Mathematics	5	0	0	5
2					
RTH 102	Therapy II	4	2	0	5
RTH 112	Technical Clinical II	0	0	15	5
BIO 131	Anatomy and Physiology	4	2	0	5
ENG 101	Communication Skills	3	0	0	3
3					
RTH 103	Therapy III	4	2	0	5
RTH 113	Technical Clinical III	0	0	15	5
BIO 132	Microbiology	4	2	0	5
MED 130	Pharmacology	3	0	0	3
ENG 120	Technical Report Writing	3	0	0	3
4					
RTH 104	Therapy IV	4	2	0	5
RTH 114	Technical Clinical IV	0	0	24	8
BIO 133	Pathophysiology	4	0	0	4
5					
RTH 201	Therapy V	4	2	0	5
RTH 202	Clinical Practice V	0	0	15	5
PHY 130	Physics	5	2	0	6
6					
RTH 203	Therapy VI	4	2	0	5
RTH 204	Clinical Practice VI	0	0	15	5
PSY 110	General Psychology	3	0	0	3
ENG 102	Communication Skills	3	0	0	3
7					
RTH 205	Therapy VII	4	2	0	5
RTH 206	Clinical Practice VII	0	0	15	5
ENG 103	Communication Skills	3	0	0	3
	General Education Elective				

Required Courses Credit Hours 118
General Education Elective Credit Hours 3

Total Credit Hours Required for Graduation 121

Note: This suggested sequence of courses is based on a full-time student beginning in the fall quarter. This sequence does not apply to students taking courses other than those listed in this plan of study.

Course Descriptions

Accounting

ACC 120 ACCOUNTING I

This course introduces the principles, tools, and techniques of accounting. Emphasis is on collecting, analyzing, summarizing, and reporting information about service and mercantile enterprises. Practical applications of basic accounting principles, along with topics on special purpose journals, internal control, bank reconciliation and general purpose financial statements, are included. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: None.

ACC 121 ACCOUNTING II

This course introduces partnership and corporate accounting. Additional topics covered include depreciation methods, inventory valuation, accounting for receivables and temporary investments, payroll accounting, and the issuance of stocks and bonds. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: ACC 120.

ACC 122 ACCOUNTING III

This course focuses on long-term investments in stocks and bonds, the statement of cash flows, financial statement analysis, and an introduction to management and cost accounting. Emphasis is on recording, summarizing, and interpreting data for management control rather than on bookkeeping skills. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: ACC 121.

ACC 222 INTERMEDIATE ACCOUNTING I

This course involves a detailed treatment of the general field of financial accounting with emphasis on the underlying theory of accounting principles. It includes such topics as the development of accounting standards, the financial statements, fundamental processes of recording, controlling cash and receivables, and inventory valuation methods. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: ACC 122.

ACC 223 INTERMEDIATE ACCOUNTING II

This course is a continuation of Intermediate Accounting I with emphasis on short-term and long-term liabilities, plant assets, intangible assets, paid-in capital, retained earnings, and temporary and long-term investments. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: ACC 222.

ACC 225 COST ACCOUNTING

This course focuses on the processing and evaluation of operating cost data to provide information for external reporting, internal planning and control of ongoing operations, and special decisions. Topics include job order cost, process cost, standard cost, budgets, and executive use of cost figures. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: ACC 122.

ACC 226 MANAGERIAL ACCOUNTING

Managerial Accounting is a study of financial statements, the interpretation of financial data, and an explanation of how accounting data are used in planning and controlling business activities. Emphasis is on the cooperative relationship between the manager and the accountant to achieve effectiveness. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: ACC 122.

ACC 227 ACCOUNTING THEORY

This course provides a theoretical frame of reference for the history of accounting thought, income, and asset evaluation. The course also assists the student through the processes of inductive and deductive reasoning to obtain a better understanding of the many controversial topics in the

area of accounting theory. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: ACC 122.

ACC 228 ACCOUNTING FOR NONPROFIT ORGANIZATIONS

This course focuses on the special needs and practices associated with funds and nonprofit organizations, including schools, hospitals, welfare organizations, and churches. The analysis of financial statements and the evaluation of nonprofit accounting methods are also covered. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ACC 122.

ACC 229 INDIVIDUAL TAXES

This course covers how to apply income tax laws to personal taxes. Emphasis is on preparing the U.S. Individual Form 1040 and its subsidiary schedules. Topics in North Carolina state tax laws are also introduced. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

ACC 230 BUSINESS TAXES

This course examines the application of federal income tax laws to business and business conditions. Included is a study of the sole proprietorship, partnership, and corporate tax procedures. To complete this study, tax theory and planning ideas are reviewed. Business tax returns are prepared, and topics in North Carolina state tax laws are introduced. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: ACC 229.

ACC 233 PRACTICAL APPLICATIONS IN ACCOUNTING

This course provides hands-on experience in the application of accounting principles and theory. Realistic examples of accounting jobs are presented. The student prepares a sample joint income tax return for a married couple, establishes and uses an accounting system, prepares payroll records and tax forms, and uses a microcomputer to record accounting data and to work with financial information in the form of computer output. Course Hours Per Week: Class, 1. Lab, 4. Quarter Hours Credit, 3. Prerequisites: ACC 222, ACC 229, EDP 103.

ACC 240 BUDGET MANAGEMENT

This course for nonaccounting majors focuses on practical accounting skills for managers. Additional topics include financial performance measures and investment decision making. The roles of financial support personnel and the coordination of the financial functions in an organization are also discussed. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: None.

ACC 269 AUDITING

This course covers how account balances are derived and the types of transactions or entries which may alter the proper statement of various account balances. Standard procedures are applied to account balances to confirm their accuracy. Emphasis is on the responsibilities of the auditor to his client, to interested third parties, to the general public, and to standards for professional conduct. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: ACC 222.

ACC 270 ACCOUNTING SEMINAR

This course focuses on the opportunities for employment in the accounting field and emphasizes career planning, job-seeking skills, and the professional traits required in the accounting profession. Course Hours Per Week: Class, 1. Quarter Hours Credit, 1. Prerequisite: None.

Anthropology

ANT 151 INTRODUCTION TO ANTHROPOLOGY

This course is an introduction to the study of anthropology. Topics include the physical evolution of mankind, the biological differences among human populations, prehistoric and historic developments of culture, and a comparison and analysis of cultural dynamics. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

Art

ART 101 ART APPRECIATION

This introductory course in art enables the student to understand what constitutes a work of art; to analyze the roles of subject, meaning, content, style, medium, and technique in art; and to establish intellectual relationships between art and man in a given cultural environment. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ART 201 HISTORY OF ART TO THE RENAISSANCE

This course introduces the student to representative examples of art from antiquity to the early Renaissance. This survey course is designed to acquaint students with the historical development of architecture, sculpture, and painting through an analysis of the stylistic and symbolic changes in art. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

ART 202 HISTORY OF ART SINCE THE RENAISSANCE

This course focuses on the history of art from the Renaissance to the present. The student analyzes the formal characteristics of painting, sculpture, and architecture. The course stresses the symbolic nature of art and its relationship to social institutions. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

Automotive

AUT 1100 TOOLS, FASTENERS, AND SPECIFICATIONS

This course emphasizes the correct use and nomenclature of hand and power tools, various automotive fasteners, and chemical cleaners, sealers, and adhesives. The use of service manuals to obtain desired specifications and specific service procedures is included. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: None.

AUT 1101 ENGINE THEORY AND SYSTEMS

This course introduces the theory and principles of gasoline and small diesel engine operation. The student performs minor servicing and tests various external engine subsystems. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1102 ELECTRICAL SYSTEMS

This course covers concepts of automotive electrical systems, and focuses on batteries, charging systems, starting systems, electrical accessories, and operation testing and servicing. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1104 ENGINE PERFORMANCE AND DIAGNOSTICS

This course is a study of the operations and interrelationships between various engine systems. Beginning with basic engine performance tests, the course focuses on tune-ups as related to electronic ignition systems, fuel delivery/injection systems, emission control systems, and computer control systems functioning to specifications. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisites: AUT 1101, AUT 1102 or equivalents.

AUT 1106 ENGINE REBUILDING

This course covers the internal combustion engine and focuses on engine operation, testing, measuring, troubleshooting, disassembly, and assembly procedures. The procedures and techniques for rebuilding gasoline and diesel engines are included. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: AUT 1104 or equivalent.

AUT 1107 BRAKES AND TIRES

This course covers the theory and operation of braking systems and tire and wheel assemblies used on automobiles and light trucks. Students service various brake systems, brake system components, and perform tire and wheel assembly balancing. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1108 MANUAL TRANSMISSIONS/TRANSAXLES

This course is a study of manual (standard) transmissions and transaxles and drive train components such as clutch systems, drive lines, and differentials. The student diagnoses problems and overhauls all types of manual transmissions and drive trains. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1109 STEERING, SUSPENSION, AND ALIGNMENT

This course examines the various styles of suspension and steering systems and their components. Systems operations, testing, and the most common repair methods are emphasized. Wheel alignment (front and rear) is an integral part of the course. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1110 AIR CONDITIONING

This course is a general introduction to the principles of refrigeration. Emphasis is on automotive air conditioning operation, diagnosis, and servicing as related to automobiles and light trucks. Refrigerant recovery, recycling, handling, and safety are also introduced. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1111 AUTOMATIC TRANSMISSIONS/TRANSAXLES

This course is a study of the theory, operation, service, and repair of automatic transmission and transaxle systems. Components studied include torque converters, hydraulic control systems, and complex planetary gearing. Several popular types of transmissions are also examined. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: AUT 1108 or equivalent.

AUT 1112 AUTOMOTIVE DIAGNOSIS AND SERVICE

This course simulates the operation of an automotive shop and emphasizes shop routines, paperwork, productivity, and customer relations. This course reinforces information provided in previous courses, and helps the student develop speed and proficiency in diagnosis and servicing techniques. In addition, the student selects areas of specialization in specific phases of automotive repairs. Specialties may include brakes, engine performance, electrical testing and repairs, wheel alignment, computerized engine controls, and others by arrangement with the instructor. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisites: AUT 1109, AUT 1111, AUT 1113 or equivalents.

AUT 1113 COMPUTERIZED ENGINE CONTROLS

This course examines computerized engine control systems used to monitor and control the operation of gasoline and diesel engines. The student performs diagnostic tests and services various sensor and controller circuits used with computer controlled feedback carburetors and fuel-injected gasoline and diesel engines. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: AUT 1104 or equivalent.

Biology

BIO 111 GENERAL BIOLOGY I

This course is a comprehensive study of the plant and animal kingdoms with emphasis on organism classifications, anatomical diversities, evolutionary patterns, population genetics, biospheres, ecosystems, and environmental studies. Laboratory and field exercises accompany lecture topics to reinforce basic principles in zoology, botany, and ecology. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

BIO 112 GENERAL BIOLOGY II

This course is a comprehensive study of cellular biology with specific emphasis on cell theory, cellular structure and function, membrane transport systems, bioenergetics and respiratory cycles, genetics, cellular and organism reproduction, and the biological interaction among living organisms. Laboratory exercises deal with basic biological principles, scientific experimentation and reasoning, and a comparative study of cellular structures and functions. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

BIO 120 ANATOMY AND PHYSIOLOGY

This course is a comprehensive study of human anatomy and physiology. The functions and interrelationships of each of the organ systems are emphasized. Laboratory exercises include specific organ dissections and observations of physiology. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

BIO 130 GENERAL BIOLOGY

This course introduces cellular biology and emphasizes the ultrastructure of cell anatomy, the molecular aspects of cell physiology, cellular reproduction and genetics, and introductory vertebrate dissection. Laboratory exercises focus on basic biological principles, microscope techniques, dissection techniques, and utilizing deductive and inductive reasoning in experimentation. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

BIO 131 ANATOMY AND PHYSIOLOGY

This course provides the student with a comprehensive study of the human organ systems. Emphasis is on the physiology of the nervous, cardiovascular, pulmonary, and excretory systems and their interrelation in the maintenance of homeostasis. Studies of fluid-electrolyte balance and acid-base regulation are also included. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

BIO 132 MICROBIOLOGY

This course introduces clinical microbiology and emphasizes the bacterial, viral, and fungal agents of respiratory disease. A general study of bacteriology, immunology, disease transmission, infection processes, nosocomial infection, and microbial control is included. Laboratory exercises provide experience in aseptic technique, sterilization, microbial control, specimen collecting, and basic serological procedures. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

BIO 133 PATHOPHYSIOLOGY

This course provides a study of normal and abnormal physiology (pathophysiology). Discussion topics include etiology and pathogenesis of respiratory and cardiovascular diseases. The course emphasizes the clinical manifestations, symptoms, complications, prognosis, and the diagnosis of the disease. Focus is on the physiological and pathophysiological effects of pulmonary disease and on common diseases of the chest. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: BIO 132.

BIO 151 GENERAL BIOLOGY

This course is a comprehensive study of cellular biology with specific

emphasis on cellular structure and function, bioenergetics, protein synthesis, and heredity. Laboratory exercises deal with basic biological principles and scientific experimentation. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6. Prerequisite: One year of high school biology or equivalent.

BIO 152 GENERAL ZOOLOGY

This course is a comprehensive study of the major groups of animals with emphasis on classification, structure and function, diversity, ecology, and evolution. Laboratory and field exercises accompany lecture topics to reinforce basic principles. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6. Prerequisite: BIO 151.

BIO 153 GENERAL BOTANY

This course is a comprehensive study of the major groups of plants with emphasis on classification, structure and function, diversity, ecology, and evolution. Laboratory and field exercises accompany lecture topics to reinforce basic principles. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6. Prerequisite: BIO 151.

BIO 160 ANATOMY AND PHYSIOLOGY

This course provides a comprehensive study of the basic structure and function of the major body systems. The functional interrelationships between systems are emphasized. Laboratory exercises include vertebrate and specific organ dissections as well as physiologic testing. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None. High school biology recommended.

BIO 161 ADVANCED PHYSIOLOGY

This course provides a detailed study of the physiological development and functions of the human body. Emphasis is on genetics, biochemistry, biophysics, nutrition, and the maintenance of homeostasis. The course also includes the physiological monitoring of body functions and physiologic parameters. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: BIO 160 or equivalent.

BIO 240 MICROBIOLOGY

This course is a comprehensive survey of microorganisms with emphasis on diversity, structure and function, immunology, disease transmission, infection processes, and external control. Laboratory exercises provide experience in aseptic technique, identification procedures, disinfection, sterilization, and antibiotic sensitivity. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: BIO 160 or equivalent.

Business

BUS 101 INTRODUCTION TO BUSINESS

This course surveys the business world. The student is introduced to the business environment, organization and management of the enterprise, management of human resources, marketing, financing, and the quantitative tools of management. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

BUS 115 BUSINESS LAW: CONTRACTS AND COURTS

In this course the student studies basic legal concepts relevant to business practice including contract law and the operation of the court system. Consumer protection is also introduced. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 116 BUSINESS LAW: NEGOTIABLE INSTRUMENTS

In this course the student examines contract law and consumer protection. The types and functions of commercial paper are emphasized. Additional topics include warranties, security devices, wills, and property law. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 123 BUSINESS FINANCE

This course examines financial institutions and the financing of business enterprises. Both short- and long-term business financing are studied. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 124 PERSONAL FINANCE

This course presents an indepth study of personal financial decisions the average person can expect to confront including the basics of budgeting; the intricacies of home ownership, income tax, and investment; and the wise use of insurance, wills, and trusts. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 161 REAL ESTATE MATH

This course enables a student to become more familiar with the mathematics required to be a successful real estate salesman or broker. Emphasis is on the mathematical skills necessary for real estate licensing examinations. The course includes study of mathematical operations using whole numbers, decimals, and fractions. Special attention is given to percentages, proration, and proportion. Geometry is studied from the standpoint of finding area and volume of the various shapes encountered in the study of real estate. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 162 FUNDAMENTALS OF REAL ESTATE: SALESMAN

This course covers the fundamental real estate principles and practices including real estate law, financing, brokerage, closing, valuation, management, and taxation. Also included is instruction on residential building construction, land use, the real estate market, the North Carolina Real Estate License Law, and Rules/Regulations of the North Carolina Real Estate Licensing Board. Course Hours Per Week: Class, 6. Quarter Hours Credit, 6. Prerequisite: None.

BUS 163 REAL ESTATE BROKERAGE OPERATIONS

This course covers the fundamentals of real estate brokerage. The function of the broker and the relationship of real estate to other professions are explored. Detailed coverage of agreements of sale and real estate closings is included. Additionally, the student learns about valuation, construction, property management, land use controls, appraisals, and the tax implications of real estate transactions. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: BUS 162. (In addition, the student must, within the previous five years, have either completed the "Fundamentals of Real Estate: Salesman" course or must hold a salesman license.)

BUS 164 REAL ESTATE LAW

This course covers advanced-level instruction of real property ownership and interests, transfer of title to real property, land use controls, real estate brokerage and the law of agency, real estate contracts, landlord and tenant law, mortgages/deeds of trust, property insurance, federal income taxation of real estate, the North Carolina Real Estate License Law, Rules/Regulations of the North Carolina Real Estate Licensing Board, the Licensing Board's "Trust Account Guidelines", and basic securities law aspects of real estate transactions. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: BUS 162. (In addition, the student must, within the previous five years, have either completed the "Fundamentals of Real Estate: Salesman" course or must hold a salesman license.)

BUS 165 REAL ESTATE FINANCE

This course covers advanced-level instruction in the major aspects of financing real estate transactions, including historical development of real estate financing, sources of mortgage funds, the secondary mortgage market, financing instruments, types of mortgage loans, underwriting mortgage loans, consumer legislation affecting real estate financing, real property valuation, and finance and appraisal mathematics. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: BUS 162. (In

addition, the student must, within the previous five years, have either completed the "Fundamentals of Real Estate: Salesman" course or must hold a salesman license.)

BUS 170 INTRODUCTION TO REAL ESTATE APPRAISAL (R-1)

This course introduces the student to the subject of real estate appraisal and prepares the student for the next course on Valuation Principles and Procedures. It begins with coverage of basic real property law followed by coverage of the various concepts of value and the operation of real estate markets. Relevant mathematical concepts are then reviewed, and the student is introduced to statistical concepts used in appraisal practice. Next comes coverage of real estate financing terminology and practices followed by an introduction to the basics of residential construction and design. The student is then provided an overview of the entire valuation (appraisal) process, and the course concludes with specific coverage of residential neighborhood analysis and property analysis, two of the most important preliminary steps in the appraisal process. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 171 VALUATION PRINCIPLES AND PROCEDURES (R-2)

This course focuses on the procedures (methodology) used to develop an estimate of property value and how the various principles of value relate to the application of such procedures. Emphasis is on appraisal of residential 1-4 unit properties and small farms; however, all the concepts and procedures covered are applicable to the appraisal of all types of properties. The course begins with a review of the appraisal process and proceeds into thorough coverage of the sales comparison approach followed by site valuation methods used to appraise residential 1-4 unit properties. The cost approach is then covered in depth. The basic concepts and methodology associated with the income approach are covered with emphasis on direct capitalization using an overall rate and the gross rent multiplier technique. Finally, the student is introduced to the process of reconciling property value estimates obtained through application of the approaches to value. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: BUS 170.

BUS 172 APPLIED RESIDENTIAL PROPERTY VALUATION (R-3)

This course covers laws, rules, and standards which must be followed by appraisers and focuses on the application of principles and procedures to the appraisal of residential 1-4 unit properties and small farms. The student is first acquainted with federal laws/regulations applicable to appraisers and the provisions of the North Carolina Real Estate Appraisers Act and related Commission Rules. Next comes coverage of the Uniform Standards of Professional Appraisal Practice (which are part of the Commission's Rules) followed by coverage of appraisal reports with emphasis on standard report forms. The student then participates in a comprehensive case study of an appraisal of a single-family house using the URAR form. Instruction is then provided on various special considerations in appraising other types of residential 1-4 unit properties and in appraising farms. Finally, the student is introduced to appraising special (partial) property interests and to condemnation appraisals. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: BUS 171.

BUS 175 INTRODUCTION TO INCOME PROPERTY APPRAISAL (G-1)

This course introduces concepts and techniques used to appraise real estate income properties. It begins with a discussion of underlying economic principles and motivations for investing in income property. The appraisal process is then reviewed with emphasis on income property. This is followed by a discussion of real estate market analysis, property analysis, and site valuation. Mathematical and statistical concepts used in the appraisal of income property are covered next followed by coverage of how to use financial tables and/or financial calculators to solve a variety of problems associated with analysis of real estate income properties including present value, loan calculations, estimation of net operating income, and estimation of before tax cash flow. Next, the student learns how to estimate the value of a real estate income property by using a

gross income multiplier and by direct capitalization with an overall rate. Finally, the student is introduced to other capitalization rates. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: BUS 172.

**BUS 176 ADVANCED INCOME
CAPITALIZATION PROCEDURES (G-2)**

This course reviews and then expands on the concepts introduced in the introductory Income Property Appraisal course. The direct capitalization techniques introduced in the introductory course are expanded to include various band of investment and residual techniques used in income property appraisal. This is followed by a thorough discussion of the concepts of yield rates and of discounted cash flow analysis (yield capitalization), which is the primary focus of this course. Financial leverage is also discussed so the student better understands the relationship between various yield rates and capitalization rates. Several traditional yield capitalization formulas including Inwood, Hoskold, Ellwood and Akerson are then discussed. Although rendered obsolete by the advent of financial calculators, these formulas are still used by many appraisers and the student should be familiar with them. A financial calculator is required for this course. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: BUS 175.

BUS 177 APPLIED INCOME PROPERTY VALUATION (G-3)

This course covers laws, rules, and standards which must be followed by appraisers and focuses on the application of principles and practices to the appraisal of income properties. The course begins with a review of federal laws/regulations applicable to appraisers followed by coverage of the North Carolina Real Estate Appraisers Act and related Commission Rules and coverage of the Uniform Standards of Professional Appraisal Practice (which are part of the Commission's Rules). Preparation of narrative appraisal reports is then covered with the student also being introduced to the Uniform Commercial and Industrial Appraisal Report (UCIAR) form. Coverage then shifts to appraising leased income properties with emphasis on the effect of various lease provisions on the value estimate. The student then participates in highest and best use case studies followed by case studies of appraisals of various types of existing income properties, which is the major focus of the course. The course concludes by covering considerations in appraising various development projects. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: BUS 176.

BUS 210 INVESTMENT ANALYSIS

This course covers the concepts related to financial investment and the fundamentals of managing investments. The securities market, stocks, bonds, mutual funds, real estate, and taxes are discussed. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 219 CREDIT PROCEDURES AND PROBLEMS

This course introduces the concept of credit and its usefulness in business practice. The legal aspects of credit and collection are covered as well as collection procedures and techniques. The student also learns to evaluate credit risk. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 232 SALESMANSHIP

In this course the student studies the fundamentals of selling and good sales techniques. Topics include prospecting, planning the sales presentation, planning the approach (securing an appointment and initial contact), delivering the sales presentation, demonstrating the product, answering objections, and closing the sale. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 233 PERSONNEL MANAGEMENT

This course provides the student with a background in human resources management and covers the history of personnel theory and practice. The course also examines the activities involved in hiring, training, motivating, and retraining human resources. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 235 SMALL BUSINESS MANAGEMENT

This course covers the principles of small business management including planning, staffing, directing, controlling, and organizing. Particular attention is given to beginning and operating a small business. Other areas covered are financing, selling, purchasing, and laying out and designing a business. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 236 PRINCIPLES OF MANAGEMENT

This course covers the major functions of management and the skills which lead to managerial success in business and industry. Planning, organizing, directing, and controlling activities in an organization are studied. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 239 MARKETING

In this course the student examines the marketing concept and studies products, distribution channels, and advertising. The roles of the producer, wholesaler, and retailer are also explained. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

BUS 243 ADVERTISING

This course examines the role advertising plays in a free economy. A study of advertising appeals and an exploration of the issues involved in selecting advertising media are also included. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

BUS 245 RETAILING

This course examines retailing methods which include franchising, store location and layout, store organization, buying, selling, merchandise handling, and display. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 247 FUNDAMENTALS OF RISK AND INSURANCE

In this course the student studies the concepts of risk insurance including the legal principles underlying insurance contracts. Fire, auto, life, and health insurance options are considered from the consumer's point of view. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 271 OFFICE SYSTEMS MANAGEMENT

Designed for current or potential managers of office automation, this course emphasizes the flow and management of information processing and related technologies, which include the areas of input, processing, reprographics, distribution, and records management. This course also analyzes the management functions of planning, organizing, staffing, and controlling as related to office automation. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 272 PRINCIPLES OF SUPERVISION

Effective supervision of other workers involves skills beyond the simple knowledge of their job. This course covers the concepts and techniques in training, assisting, motivating, evaluating, and disciplining personnel. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 274 LABOR RELATIONS

This course describes the history and current state of the labor movement in the United States. The collective bargaining process and the major legislation affecting workers are areas examined. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 275 BUSINESS STRATEGY

This course gives the student an opportunity to apply knowledge and skills from prior courses in order to make analyses and decisions in all of the functional areas of business. The course focuses on the development of simulated business strategies, based on information derived from

a variety of sources. The course is designed to facilitate the integration of all areas of business and to develop the ability of the student to work as a team member in making decisions. Factors that affect business success are emphasized. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: BUS 233, BUS 236, BUS 239.

Carpentry

CAR 1101 WOOD AND WOODWORKING TOOLS

This course introduces the carpentry trade, its tools, and the different types of wood. The student develops skills and craftsmanship in working with wood and in safely operating hand and power woodworking tools. Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 5. Prerequisite: None.

CAR 1102 FOUNDATIONS AND FLOOR FRAMING

This course introduces planning, constructing, and repairing foundations and floor frames. Major topics covered include materials and methods of construction, building layout, preparation of the site, footings and foundation wall construction, form construction and erection, and repairs to foundations and floor frames. Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 5. Prerequisite: None.

CAR 1103 WALL AND ROOF FRAMING

This course introduces frame construction and framing repair. Starting with the floor frame, the course covers wall studs, ceiling joists, rafters, bracing, roof sheathing, interior wall partitions, and insulation. Roof construction includes rafter, truss, and post and beam construction methods. New construction and repair is coordinated with the other building trades involved in a project. Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 5. Prerequisite: None.

CAR 1104 EXTERIOR AND INTERIOR FINISH

This course introduces exterior and interior trim, finish, and repair carpentry. The materials and methods used in finish carpentry including roofing, siding, doors and windows, interior flooring, moldings, stairs, cornice construction, installing hardware, installing pre-built cabinets, and repairing common exterior and interior finish problems are covered. Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 5. Prerequisite: None.

CAR 1110 CONSTRUCTION MATERIALS

This course covers the fundamental aspects of the important construction materials and their uses. Emphasis is on concrete, masonry, metals, woods, plastics, glass, insulation materials, finishes, and mechanical and electrical systems. Newly developed materials and new uses for old materials are also covered. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

CAR 1111 RENOVATION OPERATIONS

This course presents an overview of evaluating, organizing, estimating, and managing a renovation or a new construction. Major study topics include inspection fundamentals, building construction, contracts, project management and scheduling, estimating, and financial control. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: None.

Chemistry

CHM 110 CHEMISTRY FOR FIRE SCIENCE

This course presents fundamental chemistry principles as they relate to applied fire science. Particular attention is given to the laws of matter and energy, the physical properties and behaviors of substances, and the combustion process. The laws of heat generation and transfer and

the chemistry of extinguishing agents and processes are studied extensively. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

CHM 115 CHEMISTRY OF HAZARDOUS MATERIALS

This course presents a fundamental approach to the chemical principles of matter considered hazardous by societal standards. Attention is given to the behavior of substances as they exist alone or in combination, to combustion hazards, and to the relationship of extinguishing agents. Emergency response to situations involving these chemicals is also addressed. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

CHM 130 CHEMISTRY

This course provides the student with a study of the chemical changes, physical and chemical properties of substances, elements, compounds, gases, chemical combinations, weights and measurements, theory of metals, acids, bases, salts, solvents, solutions, and emulsions. An introduction to organic chemistry, acid-base balance, buffer systems, and carbohydrates and electrolytes as they apply to vertebrate physiology are other areas included in this study. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: MAT 120 or equivalent.

CHM 140 CHEMISTRY

This course introduces the student to inorganic, organic, and polymer chemistry. Included is a study of scientific measurement, physical and chemical properties, structure of matter, changes of substances, atomic structure, elements, compounds, chemical reactions and equations, metals, acids, bases, salts, concentration theory, solutions, hydrocarbons, main classes of organic compounds, and polymerization. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

CHM 151 GENERAL CHEMISTRY I

This course covers fundamental chemical concepts including measurement, properties of matter, atomic structure and periodicity, chemical formulae, stoichiometry, thermochemistry, gases, bonding, molecular structure, and chemical reactions. Laboratory exercises reinforce basic principles. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: One year of high school chemistry. Corequisite: MAT 171.

CHM 152 GENERAL CHEMISTRY II

This course, a continuation of General Chemistry I, covers fundamental chemical concepts including chemical kinetics, chemical equilibrium, liquids and solids, solutions, acids, and bases. Laboratory exercises reinforce basic principles. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: CHM 151.

CHM 153 GENERAL CHEMISTRY III

This course, a continuation of General Chemistry II, covers fundamental concepts including representative elements, transition metals, oxidation reduction reactions, electrochemistry, nuclear reactions, and an introduction to organic and polymer chemistry and biochemistry. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: CHM 152.

CHM 211 ORGANIC CHEMISTRY I

This course covers molecular structure and its determination by modern physical methods, stereochemistry, classification of "reaction types" exhibited by organic molecules, and the synthesis of carbon compounds. Detailed coverage of alkyl halides, alcohols, ethers, and related compounds is included. Laboratory exercises examine the application of separation and spectrophotometric techniques to organic compounds. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: CHM 153.

CHM 212 ORGANIC CHEMISTRY II

This course, a continuation of Organic Chemistry I, is a detailed study

of alkenes, alkynes, aromaticity, benzene and substituted benzene, aldehydes, ketones, carboxylic acids and their derivatives, enolates and carbanions, spectroscopy-infrared, and nuclear magnetic resonance. Laboratory exercises include synthesis of selected organic compounds. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: CHM 211.

CHM 213 ORGANIC CHEMISTRY III

This course, a continuation of Organic Chemistry II, covers the following topics in detail: amines, polycyclic and heterocyclic aromatic compounds, pericyclic reactions, carbohydrates, amino acids and proteins, lipids and related natural products. Laboratory exercises include separation and identification of unknown compounds using modern analytical spectroscopic techniques. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: CHM 212.

Criminal Justice

CJC 101 INTRODUCTION TO CRIMINAL JUSTICE

This general course familiarizes the student with a philosophy and history of criminal justice including its legal limitations in a democratic republic. The course includes a survey of the primary duties and responsibilities of the various criminal justice agencies, delineation of the basic processes of justice, evaluation of criminal justice's current position, and an orientation relative to criminal justice as a vocation. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 102 CRIMINOLOGY

This course focuses on studying crime as a social phenomenon and examines the variables affecting crime, the development of crime, and patterns and trends in criminal activity. Emphasis is on generalizations which can be drawn from statistical evidence. Individual case studies which clarify the major theories of criminology are also examined. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 105 BASIC LAW ENFORCEMENT TRAINING (BLET)

This course contains all of the required studies for certification as a law enforcement officer as prescribed in the state of North Carolina basic training certification standards. An overall view of the criminal justice system, criminal law, motor vehicle law, and patrol procedures are covered. All credits are earned through successful completion of the basic law enforcement training school. Course Hours Per Week: Class, 14. Lab, 27. Quarter Hours Credit, 23. Prerequisite: Employment in or sponsorship by a law enforcement agency.

CJC 110 JUVENILE DELINQUENCY

This course examines the causes, nature, and impact of juvenile delinquency as well as the juvenile justice system which has developed as a means of dealing with delinquency. Emphasis is on the origins of delinquency, the treatment programs, and the legal rights and procedures which have developed in the juvenile system. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 111 INTRODUCTION TO CORRECTIONS

This course familiarizes the student with a philosophy and history of corrections, which includes the limitations that are set in a democracy. The course examines the various facets of corrections with an emphasis on institutional and community-based correctional services. Correctional services of both state and federal governments are studied with special attention given to the correctional services of North Carolina. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 115 CRIMINAL PROCEDURE

This course introduces the student to the fundamental concepts of criminal procedure. Emphasizing procedures which affect law enforcement and

administration, this course also covers the laws of arrest, search and seizure, and the basic tenants of constitutional rights as they affect criminal procedure. Special attention is given to Chapter 15A, the North Carolina Criminal Procedure Act, and the court decisions shaping the application of procedural law. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 120 INTRODUCTION TO SECURITY

This course familiarizes the student with the philosophy and history of private security in America. The course addresses the basic functions and expectations of private security professionals and the roles they play in our corporate environment. Also, the course identifies problem areas in security, evaluates the position of private security in America, and presents an orientation relative to private security as a vocation. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 125 JUDICIAL SYSTEMS

This course reviews the federal and state of North Carolina court systems. Providing detailed analyses of court procedures from the initial arraignment through the appeals process, the course also emphasizes applications of federal and state constitutional principles to the judicial process. The organizational and procedural processes of North Carolina courts are covered. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 203 COLLISION INVESTIGATION AND THE LAW

This course covers the method for investigating traffic crashes to determine cause, rate of speed, sequence of events, and the other pertinent factors in assessing criminal liability. The elements of North Carolina motor vehicle law and enforcement efforts, including the investigation of collisions, are examined. Emphasis is on developing a legally defensible scientific methodology for establishing motor vehicle violations and preparing for court. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

CJC 205 EVIDENCE

This course closely analyzes the basic law of evidence and the application of legal constructs to the investigative and evidence collection processes. Focusing on standards which must follow guidelines set by current Supreme Court decisions and the federal and state evidence rules, the course covers the interrogation process, search and seizure, interviewing, collecting physical evidence, and trial presentation. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 208 FINGERPRINTS

This course is a specialized study of fingerprints as a means of positive identification in law enforcement work. The course involves the history of fingerprinting, basic fingerprint patterns, and the Henry system for classification. Emphasis is on training in classification and filing through practical problems, the taking of fingerprints, and handling simple latent fingerprint patterns. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

CJC 210 CRIMINAL INVESTIGATION

This course introduces the student to investigation fundamentals, crime scene search, recording, collecting and preserving evidence, information sources, interview, and interrogation. The course also deals with case preparation; court presentation; and the investigation of specific offenses such as arson, narcotics, sex, larceny, burglary, robbery, and homicide. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 211 CRIMINALISTICS

This course surveys the methods and techniques for recognizing, collecting, and preserving physical evidence found at a crime scene. The course explores laboratory analysis, classification, and identification. Methods of chemical, optical, and physical analysis and comparison

are included. The documentation process for use in court is also discussed. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 212 DRUGS

This course explores the nature of drug addiction, the impact of addiction on the criminal justice system, and the effect of addiction on society as a whole. The study focuses on each category of abused drugs and examines the specific generic examples of the drug category. The psychological and physical effects of the drug as well as dependency, adverse reaction, and toxicity of the drug are studied. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 216 CRIMINAL LAW

The major focus of this course is on identifying the elements of statutory and common law crimes. The course involves analyzing statutory elements as well as judicial interpretation and defining common law and case law for nonstatutorily defined offenses and elements. Emphasis is on applying general principles of criminal law to actual problems and situations found in the field. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 217 PATROL PROCEDURES

This course presents the skills, tactics, techniques, and procedures necessary for carrying out effective police patrols. During the course, the student develops a central body of practical skills, including communication, observation, reporting, and interviewing. Also, this course emphasizes tactics for handling a broad range of problems from domestic disagreements to felonies in progress. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 220 POLICE ADMINISTRATION

This course examines police administration functions and focuses on organizational dynamics. Topics include policy and procedure development, personnel practices, productivity evaluation, and financial planning. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 240 PRIVATE SECURITY AND LAW

This course provides the student with an overview of the private security field. Emphasis is on specific prevention and apprehension methods for commercial, retail, and industrial protection including protection from unlawful intrusion, retail theft, and employee theft. The legal aspects of private security are also discussed. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 270 CONSTITUTIONAL LAW

This course examines the central principles addressed in the United States Constitution and leading Supreme Court decisions. Emphasis is on the major constitutional issues concerning law enforcement. Included are rights to due process, rights to counsel, protection against unreasonable searches and seizures, and freedom of speech. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 280 CIVIL LAW AND PROCEDURE

This course presents the basic principles of civil law, defines the differences between civil and criminal law in substance and procedure, and examines the application of civil law in areas relevant to police work. Special emphasis is on landlord-tenant rights disputes, marital settlement disputes, civil process service, officer liability for excessive use of force, and false arrest torts. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 285 ETHICS IN LAW ENFORCEMENT

This course is a study of the societal expectations of police behavior in comparison to the practicality of the situation. The course provides an insight into the necessity of police integrity, the barriers to achieving the

same, and avenues that officers and administrators may use to perpetuate and enhance public trust. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

Computer Science

CSC 151 INTRODUCTION TO COMPUTERS

This course in computer literacy introduces the student to computers and their uses. Emphasis is on how computers work and how they are used to solve problems. The student uses the computer for simple software applications and for beginning BASIC programming. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

Dental

DEN 101 DENTAL ANATOMY

This course introduces the anatomy of an individual tooth. Laboratory activities include scale drawings of each tooth from central incisors through the second molar on one side of the upper and lower arches. Each tooth is carved to scale in wax with special emphasis on reproducing natural tooth anatomy. Course Hours Per Week: Class, 2. Lab, 9. Quarter Hours Credit, 5. Prerequisite: None.

DEN 102 ORAL ANATOMY AND PHYSIOLOGY

This course is a study of the basic anatomy and physiology of the head, oral cavity, dentition and supporting structures, the temporomandibular joint, occlusion, and malocclusion. The course introduces the student to the morphological, functional, and esthetic relationships between teeth and supporting dentition. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisite: None.

DEN 104 DENTAL MATERIALS

This course provides a study of the composition, properties, and uses of nonmetallic dental materials such as gypsum products, impression materials, waxes, acrylic resins, and duplicating materials. Laboratory exercises illustrate the properties and uses of the materials studied and the results of their proper and improper manipulation. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

DEN 106 INTRODUCTION TO COMPLETE DENTURES

This course introduces the basic techniques for complete denture fabrication. Laboratory activities include fabricating base plates and occlusion rims, mounting edentulous casts on an adjustable articulator, and completing maxillary and mandibular custom trays. The student also completes a maxillary set-up and wax-up on a trial denture base. Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3. Prerequisite: None.

DEN 107 INTERMEDIATE DENTURE TECHNIQUES

This course is a continuing study of complete denture fabrication. Laboratory activities include constructing complete maxillary and mandibular dentures using various posterior tooth forms on an adjustable articulator. Procedures for refitting and repairing complete dentures are included. Course Hours Per Week: Class, 1. Lab, 9. Quarter Hours Credit, 4. Prerequisites: DEN 101, DEN 104, DEN 106.

DEN 108 CAST PARTIAL DENTURE FRAMEWORKS

This course presents the basic techniques used in fabricating cast-removable partial-denture frameworks utilizing a chrome-nickel alloy. Laboratory activities include practical exercises in the fundamentals for surveying master models and designing partial denture frameworks. Further exercises include block-out procedures, pouring refractory casts, and forming the wax patterns. Patterns are then invested followed by the burn-out of the molds. The frameworks are cast, finished, polished, and seated

on the master models. All metal frameworks are evaluated for accuracy and appearance. Course Hours Per Week: Class, 2. Lab, 9. Quarter Hours Credit, 5. Prerequisite: None.

DEN 109 REMOVABLE WROUGHT AND SPECIAL RESTORATIONS

This course examines removable prosthetic restorations, which include wrought clasps and combination cast- and wrought-metal frameworks. A study of orthodontic/pedodontic appliances is also included. Laboratory activities are devoted to fabricating those prosthodontic and orthodontic appliances covered in the classroom. Course Hours Per Week: Class, 2. Lab, 12. Quarter Hours Credit, 6. Prerequisite: DEN 108.

DEN 111 DENTAL METALLURGY

This course covers the physical and mechanical properties of both precious and non-precious metal alloys including cast and wrought structures and the use of various casting and soldering investments. Troubleshooting possible causes for defective castings is also included. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisite: DEN 104.

DEN 113 CAST INLAY AND CROWN TECHNIQUES

This course presents techniques for fabricating cast gold restorations and introduces terminology and techniques specific to inlays and crowns. During laboratory activities, the student prepares casts and dies from impressions and articulates the casts. Guided by the principles of occlusion, the student forms wax patterns using a drop-wax technique. The student then carves; invests; casts; and polishes simple and complex inlays, full crowns, and three-quarter crowns. Course Hours Per Week: Class, 2. Lab, 9. Quarter Hours Credit, 5. Prerequisites: DEN 101, DEN 104.

DEN 115 CROWN AND BRIDGE TECHNIQUES I

This course covers the techniques for fabricating cast gold fixed bridges utilizing various abutment and pontic forms. Fabrication procedures include both single and multiple unit castings and soldering exercises. Course Hours Per Week: Class, 1. Lab, 9. Quarter Hours Credit, 4. Prerequisite: DEN 113.

DEN 116 CROWN AND BRIDGE TECHNIQUES II

This course is a continuing study of the principles and procedures for fabricating cast crowns and fixed bridges. Using gold alloys and acrylic veneering materials, students construct temporary restorations, parallel copings for overdentures, post and core, and semi-precision attachment restorations. Course Hours Per Week: Class, 2. Lab, 12. Quarter Hours Credit, 6. Prerequisite: DEN 115.

DEN 201 ADVANCED COMPLETE DENTURE TECHNIQUES

This course continues to examine complete denture techniques which include immediate dentures, overdentures, crossbite relationships utilizing the face bow transfer, and central bearing devices. Course Hours Per Week: Class, 2. Lab, 12. Quarter Hours Credit, 6. Prerequisite: DEN 107.

DEN 204 INTERMEDIATE PARTIAL DENTURE TECHNIQUES

This course continues to examine removable partial denture techniques which include articulating casts utilizing various jaw relationship records, selecting and setting up teeth, and forming wax denture bases. Further exercises include flasking, processing, finishing, polishing, and fitting the dentures on their master casts. All completed partial dentures are evaluated for accuracy and appearance. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: DEN 109.

DEN 205 ADVANCED PARTIAL DENTURE TECHNIQUES

This course examines the biomechanics of removable partial denture design and fabrication. These concepts are applied in fabricating cast metal bite raisers and restorations which include flat back facings and tube teeth. Removable partial denture design variations are also studied.

Course Hours Per Week: Class, 1. Lab, 9. Quarter Hours Credit, 4. Prerequisite: DEN 204.

DEN 207 PORCELAIN JACKET CROWNS

This course examines the physical properties and the manipulation of ceramic materials for fabricating porcelain jacket crowns. Laboratory activities include preparing dies; adapting platinum matrices; and forming, firing, glazing, and personalizing porcelain jacket crowns. Course Hours Per Week: Class, 2. Lab, 9. Quarter Hours Credit, 5. Prerequisite: DEN 116.

DEN 209 JURISPRUDENCE AND ETHICS SEMINAR

This course presents the history of the dental profession and the dental laboratory industry, the legal and ethical aspects of the industry, and the dentist-laboratory relationships. In-depth studies of the certification program and current issues are also included. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: DEN 201 or DEN 205 or DEN 211.

DEN 211 PORCELAIN FUSED TO METAL CROWNS

This course presents the techniques for fabricating porcelain fused to metal crowns. The course is structured to include model and die work, casting and finishing the metal copings, and applying and firing the porcelain to single unit substructures. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: DEN 207.

DEN 212 ADVANCED CERAMIC TECHNIQUES

This course continues the study of the techniques for bonding dental porcelain to a non-precious dental alloy. Laboratory activities include crown and pontic substructure designs for porcelain fused to metal fixed bridges and techniques for personalizing the porcelain veneer. Course Hours Per Week: Class, 2. Lab, 12. Quarter Hours Credit, 6. Prerequisite: DEN 211.

DEN 213 DENTAL LABORATORY PRACTICE

This course provides the student with practical experience in interpreting the written dental prescription and work authorization, as well as in fabricating prosthetic appliances. The class is structured to resemble a commercial dental laboratory and emphasizes dentist-laboratory relationships. The student practices the various techniques and procedures for fabricating removable and fixed dental appliances using impressions and prescriptions supplied by various legal sources. Diseases that may be contracted by the dental health care team are identified, and methods for controlling the spread of these diseases in the laboratory are discussed. Review of previous course content is covered in preparation for the Recognized Graduate (RG) examination. The student also rotates to various off-campus sites for practical experience and observation. Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3. Prerequisites: DEN 201, DEN 204, DEN 207.

DEN 214 ADVANCED DENTAL LABORATORY PRACTICE

This course provides continued practice in fabricating dental prostheses from prescriptions supplied by various legal sources. Ethical dentist-laboratory relationships continue to be emphasized. Preparation for the Recognized Graduate (RG) examination is continued. The student also rotates to various off-campus sites for practical experience and observation. Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3. Prerequisite: DEN 213.

Drafting

DFT 103 TECHNICAL DRAWING

This course introduces basic drafting fundamentals. Drafting equipment use, lettering, geometric construction, sketching, size and shape descriptions, orthographic projection, dimension, and sections are included. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: None.

DFT 151 ENGINEERING GRAPHICS

Engineering Graphics helps the student develop a basic proficiency in the use of graphic tools—the techniques and methods used to communicate two- and three-dimensional concepts. Course Hours Per Week: Class, 1. Lab, 4. Quarter Hours Credit, 3. Prerequisite: None.

DFT 201 ELECTRONIC DRAFTING

This course introduces the principles and practical applications of drafting as they relate to the electronic field. The course reviews DFT 103 as well as covers basic drawing interpretation, datum dimensioning, schematic symbols, block diagrams, and printed circuit board layout. The student sees applications of electrical drafting in industrial settings. Course Hours Per Week: Class, 1. Lab, 3. Quarter Hours Credit, 2. Prerequisite: DFT 103.

DFT 205 COMPUTER GRAPHICS

This course introduces modern computer graphics technology. Major topics include computer systems configurations, input/output devices, principles of graphics programming, low- versus high-resolution, color coding, three-dimensional computer graphics, projection techniques, and image transformations. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisites: EDP 103 or EDP 109 or EDP 115 and DFT 103 or DFT 1101.

DFT 210 ADVANCED COMPUTER GRAPHICS

Building on the operating skills acquired in DFT 205, this course provides information and practice for developing advanced skills in the use of modern CAD hardware and software. Laboratory sessions provide the opportunity to learn system set up, creating and editing various assigned drafting problems, and the use of customizing packages to make software discipline-oriented. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: DFT 205 or equivalent.

DFT 1101 ARCHITECTURAL DRAFTING I

This course introduces drafting and examines drafting practices. Selection, use and care of drawing instruments, single-stroke lettering, and freehand sketching consisting of orthographic and sectional drawings are covered. In addition, instrument drawings stressing the application of dimensioning, sectioning, multiview, axonometric, and oblique projections are taught. Drawing reproduction is also discussed. Course Hours Per Week: Class, 3. Lab, 12. Quarter Hours Credit, 7. Prerequisite: None.

DFT 1102 ARCHITECTURAL DRAFTING II

This course is the study of building materials, architectural lettering, design, and house construction. Drawing principles and practices are applied in a set of house plans designed by the student. Ramification of architectural drawings and designs relating to residential construction, preliminary considerations, exterior design, wall sections, elevations, wiring, plumbing, mechanical layouts, and rendering are included. Course Hours Per Week: Class, 3. Lab, 12. Quarter Hours Credit, 7. Prerequisite: DFT 1101.

DFT 1103 ARCHITECTURAL DRAFTING III

This course introduces the light commercial construction design of a small two-story apartment complex or other multi-family, two-story dwelling. Particular attention is paid to construction techniques and energy efficient design. Construction drawings include a floor plan, typical end wall section, transverse section, isometric plumbing plan, as well as door and wall details and various legends. Using technical pens for inking on drafting film constitutes the major portion of the course. Course Hours Per Week: Class, 3. Lab, 12. Quarter Hours Credit, 7. Prerequisite: DFT 1102.

DFT 1104 ARCHITECTURAL DRAFTING IV

This course introduces commercial architecture and emphasizes construction details and structural members. Commercial applications of building materials and their uses in small buildings are also stressed. A study of space and functional operations enables the student to understand various design considerations. Course Hours Per Week: Class, 3. Lab,

12. Quarter Hours Credit, 7. Prerequisite: DFT 1103.

DFT 1106 BLUEPRINT READING I: MECHANICAL

This course introduces the student to blueprint interpretation and reading. The course also covers information on the basic principles of the blueprint which include lines, views and dimensioning, and procedures and notes. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: DFT 103.

DFT 1107 BLUEPRINT READING II: MECHANICAL

This course provides further practice in interpreting blueprints using prints supplied by industry. Emphasis is on interpretation and application as they relate to the machine shop. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: DFT 1106.

DFT 1111 TECHNICAL DRAFTING

This course introduces the graphic solutions to problems. Basic descriptive geometry, auxiliary views, oblique views, curved lines, and revolutions are covered. The course also deals with parallel and radical line development. Course Hours Per Week: Class, 3. Lab, 3. Quarter Hours Credit, 4. Prerequisite: DFT 1101.

DFT 1112 ARCHITECTURAL MATERIALS

This course examines basic construction materials as used in architectural structures. The economic values, limitations, budgets, standards of materials, and building code requirements are included. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

DFT 1113 STRUCTURAL DRAFTING

This course emphasizes developing working drawings for such structural building parts as threads and fasteners, welding symbols, and trusses. A complete working drawing is developed and standard structural members are discussed. Course Hours Per Week: Class, 3. Lab, 3. Quarter Hours Credit, 4. Prerequisite: DFT 1111.

DFT 1114 TECHNICAL ILLUSTRATION

This course develops a student's competence in the field of architectural and technical illustration. The course covers pictorial illustration techniques including sketching, isometrics, inking and shading, air brush applications, finished illustrations, and pictorial drawings. Course Hours Per Week: Class, 1. Lab, 3. Quarter Hours Credit, 2. Prerequisite: DFT 1101.

DFT 1115 SURVEYING FOR ARCHITECTURAL DRAFTERS

This course introduces basic surveying, instrumentation principles, and plot applications. Basic trigonometric principles, ratio-solving problems, and site planning principles are employed. Orientation, drainage, zoning, and ecological factors which relate to building plots are also included. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: DFT 103 or DFT 1101.

DFT 1117 ARCHITECTURAL ESTIMATING

This course provides the student with techniques for estimating the building cost of a residence. Foundations, framing, plumbing, electricity, and finishing are included in the course. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: DFT 1112.

DFT 1118 ARCHITECTURAL BLUEPRINT READING

This course introduces the student to interpreting architectural blueprints. The basic principles of the blueprint which include lines, symbols, views, dimensioning, and procedures and notes are covered. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

Economics

ECO 102 MICROECONOMICS

This course covers introductory microeconomic concepts and emphasizes how individuals, businesses, and societies make choices in managing scarce resources. The course also deals with microeconomic concepts and problems such as the market, supply and demand, and pricing. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ECO 104 MACROECONOMICS

This course deals with money, spending, monetary and fiscal policy, and economic stabilization. The underlying causes of inflation, recession, and unemployment are covered in depth. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ECO 201 PRINCIPLES OF MICROECONOMICS

This course is a study of market theory and price determination including the effects of public and private decision makers in an economic system; resource distribution; and the behavior of firms in relation to competition, production, costs, and revenues. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

ECO 202 PRINCIPLES OF MACROECONOMICS

This course is a study of aggregate economic activity including determination and measurement of the effects of aggregate demand and aggregate supply, unemployment, inflation, and fiscal monetary policies. Other topics include contemporary economic problems and international economics. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

Electronic Data Processing

EDP 101 MICROCOMPUTER CONCEPTS

This course introduces the computer novice to microcomputer concepts. The student learns the fundamentals of operating a microcomputer and is introduced to some of the current applications of microcomputers. Laboratory exercises correlate closely with lecture topics and provide opportunities for the student to work with the hardware and with software packages. Course Hours Per Week: Class, 1. Lab, 2. Quarter Hours Credit, 2. Prerequisite: None.

EDP 103 INTRODUCTION TO MICROCOMPUTERS

This course introduces the nonprogrammer to the field of microcomputers. The student becomes familiar with the capabilities of a microcomputer, the features of an operating system, and the use of software packages. Laboratory exercises provide hands-on experience in using hardware and software. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

EDP 107 PROGRAMMING LOGIC

This course introduces the following concepts applying to all computer languages: stored program, data storage and representation, named memory locations (variables and constants), sequence, selection, repetition, and external data. Emphasis is on problem solving using top-down design. A comparison is made between batch and interactive processing. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

EDP 109 BASIC LANGUAGE I

This is an introductory course in the fundamentals of computer programming using the BASIC language on microcomputers. The student learns the BASIC language commands and uses them in problem solving and

program development. Concepts of microcomputer hardware and computer applications are introduced. Laboratory exercises correlate closely with lecture topics to provide opportunities for solving practical problems in several areas of application. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: EDP 103, EDP 107 or ELN 101 or equivalents.

EDP 110 BASIC LANGUAGE II

As a continuation of BASIC Language I, this course examines the use of advanced programming techniques and develops the skills required in handling data on multiple input/output devices. The student designs, codes, documents, and operates programs utilizing techniques associated with data input/output, validation, arrays, sorting, string manipulation, and file handling. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 109 or equivalent.

EDP 111 COBOL I

This course introduces the basics of the COBOL language and teaches the student to develop simple report programs using structured programming techniques. Emphasis is on the program development cycle, COBOL language requirements, program structure, arithmetic operations, output editing, and COBOL diagnostics. Laboratory work includes exercises in developing program logic and writing structured COBOL programs for business applications. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 107 or equivalent.

EDP 112 COBOL II

This course, a continuation of COBOL I, improves the student's analytical and programming techniques. It utilizes more advanced concepts of the COBOL language including conditional statements, input editing, multiple-level control breaks, and one-level table processing. Laboratory assignments require the student to develop programs utilizing these new concepts to solve business problems. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 111 or equivalent.

EDP 113 MICROCOMPUTER SUPPORT SOFTWARE

This course develops skills using microcomputer software and the DOS operating system. Microsoft Windows and many of its features are explored as well as utility and time management packages. Laboratory exercises provide hands-on experience in using hardware and software. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 103 or equivalent.

EDP 115 PASCAL

This course introduces the Pascal programming language and emphasizes problem solving, structured programming techniques, and the development of application programs involving the use of calculations, iteration, arrays, and subprograms. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: EDP 103, EDP 107 or MAT 145 or equivalents.

EDP 125 DESKTOP PUBLISHING

This course focuses on the use of microcomputers to produce high-quality printed materials. The components of a desktop publishing system are introduced, and the student uses the system to produce reports, newsletters, and other professional looking documents. Laboratory exercises provide extensive hands-on experience with desktop publishing system hardware and software. Course Hours Per Week: Class, 1. Lab, 4. Quarter Hours Credit, 3. Prerequisite: EDP 103 or equivalent.

EDP 127 BUSINESS GRAPHICS

This course introduces the concepts and procedures for producing business graphics. The course emphasizes the use of stand-alone business graphics packages, but also covers the use of graphics from electronic spreadsheets and freeform drawing packages. Laboratory exercises stress the production of graphics to illustrate a wide variety of

business applications. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 103 or equivalent.

EDP 140 OPERATING SYSTEMS

This course introduces the student to the basic concepts of an operating system. It traces the evolution of operating systems from the early 1960s through the present while exploring how some of the major operating systems function. The course concludes with a detailed case study of the commands and control structures of one of the major operating systems. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 103 or equivalent.

EDP 145 MICROCOMPUTER ASSEMBLER

This introductory course in assembler language for the IBM microcomputer familiarizes the student with the microprocessor and its requirements for storing and processing data. Topics include binary and hexadecimal number systems, ASCII code, machine addressing, data formats, constants, pseudo operations, input and output instructions, loop control, screen processing, string manipulation, calculations, disk processing, and debugging techniques. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 140 or equivalent.

EDP 151 C LANGUAGE I

This course in the C programming language presents the basics of the C language. The course focuses on structure of a C program, the basic data types of the language, the operators available in C, the conditional and control constructs available, the concept of arrays in C, and the writing of functions and the passing of arguments to functions. The student designs, codes, tests, and debugs programs that utilize these features. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: EDP 107, EDP 113 or equivalents.

EDP 152 C LANGUAGE II

This second course in the C programming language presents structures, unions, typedefs, derived data types, and character strings, as well as passing structures to and returning structures from functions. The use of the preprocessor to control compilation and standard I/O libraries to access disk files are also covered. The student designs, codes, tests, and debugs programs that use these features. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 151 or equivalent.

EDP 162 ASSEMBLER LANGUAGE I

This is an introductory course in assembler language programming for IBM mainframes. While presenting the fundamental differences between compiler and assembler programming languages, the course stresses how the computer actually operates on data. Topics include hardware concepts, number systems, instructional formats, data transfer, and sequence control. Laboratory assignments require the student to develop, code, and test assembler programs. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: EDP 107, MAT 137 or equivalents.

EDP 180 MICROCOMPUTER DATABASE MANAGEMENT

This course presents the basic concepts for using a microcomputer database management system. Major topics include file structure, file creation, file manipulation, and output device control. The student develops and tests programs for database applications. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 151 or equivalent.

EDP 185 MICROCOMPUTER HARDWARE AND SYSTEMS

This course familiarizes the student with the physical components of a microcomputer and with the information necessary to set up and manage a microcomputer installation. Topics include identifying internal hardware components; the use of printers, ports, and other add-on features; and set up, installation, and troubleshooting of the hardware. The course also

covers hardware and software selection, legal requirements pertaining to software usage, user training, system security, system disaster and recovery, current developments in the microcomputer field, and discussion of microcomputer environments. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 140 or equivalent.

EDP 190 COBOL SYSTEMS I

This course, a continuation of COBOL II, presents more advanced programming techniques using the COBOL language. The focus is on disk file concepts, sequential file processing, input editing, COBOL SORT, two-level tables, COBOL dumps, and hierarchy charts. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 112 or equivalent.

EDP 203 ADVANCED TOPICS IN DATA PROCESSING

This course is a study of the basic rules and requirements of a selected computer language including a discussion of good general programming techniques used in any language. The language studied is selected by the department and will be announced in advance. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 152 or equivalent.

EDP 205 SPREADSHEET APPLICATIONS

This course concentrates on the use of pre-written software packages with an emphasis on spreadsheets. A currently popular software package is presented in detail. The student learns to enter the necessary information to use the programming package, develops spreadsheets, builds files or databases, and produces appropriate business reports. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 103 or equivalent.

EDP 206 SAS

This course in the fundamentals of SAS programming is designed for the student with a background in computer programming. The student learns basic SAS commands and statements and uses them to develop complete job streams for solving a variety of data processing application problems. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 152 or equivalent.

EDP 207 RPG

This course introduces the fundamentals of the RPG language for developing programs. The student writes a series of entries on pre-defined specification forms which define the input, processing, and output. The student also writes several business application programs which emphasize the RPG fixed logic, input/output processing, arithmetic operations, edit codes, comparing control breaks, fetch overflow, tables, exception output, sequential file processing, and READ-DEMAND files. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 152 or equivalent.

EDP 210 PL/1

This course provides the student with an understanding of the fundamentals of Programming Language/One (PL/1). It is assumed that the student has some basic knowledge of the principles by which a computer works and how these principles affect programming techniques. Subject material includes character strings, edited input/output, internal procedures, arguments, parameters, manipulation of arrays, and loop control. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 112 or equivalent.

EDP 211 FORTRAN

This introductory course provides the student with the necessary information required to solve business-oriented problems using the FORTRAN computer language. Emphasis is on basic control structure, the use and manipulation of data types, arrays and subscripts, advanced control structures, subprograms, formatted input and output, logical and character string data, and multidimensional arrays. The student designs, codes,

tests, and debugs several FORTRAN programs using the WATFIV compiler. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 112 or equivalent.

EDP 213 ASSEMBLER LANGUAGE II

As a continuation of Assembler Language I, this course provides a thorough study of the binary instruction set as well as additional work with decimal instructions. Topics include OS macros, loop control, indexing, internal subroutines, address modification, use of registers, table processing, and debugging techniques. Emphasis is on applying these techniques in solving business problems. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 162 or equivalent.

EDP 215 COBOL SYSTEMS II

This course presents realistic problems which simulate a typical business application programming environment. Major topics include programming team concepts, direct access file processing, program maintenance, system documentation, job streams, subprogramming, three-dimensional tables, and interactive processing. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 190 or equivalent.

EDP 219 SYSTEMS ANALYSIS

This introductory course in systems analysis provides an understanding of the various tools employed by the analyst in creating better systems. Subject areas include investigation, detailed systems design, systems development, and presentation techniques. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 190 or equivalent.

EDP 220 DATABASE MANAGEMENT

This introductory course in database management in business provides the student with an understanding of the terminology, concepts, and techniques used in database management systems. Subject areas include conceptual database structures, the CODASYL approach to database management, relational databases, and hierarchically structured databases. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 215 or equivalent.

EDP 226 ADVANCED SAS

This advanced level course in SAS covers techniques for data manipulation in the data step, including methods for reading data records, using loops and arrays, and macro programming. Several PROCs helpful in reporting data are used. This course assumes prior experience in writing SAS programs. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 206 or equivalent.

EDP 230 MICROCOMPUTER NETWORKING

This course introduces the student to the physical components of a microcomputer network, with the process of networking microcomputers as a local area network, and with data communications. Topics include identifying internal hardware components; set up, installation, and use of a microcomputer local area network; and principles of telecommunications and wide area networks. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 140 or equivalent.

EDP 231 ADVANCED NETWORKING

This course reviews the basic components of a network and networking standards. Issues in connectivity of heterogeneous LANs, WANs, and MANs using microcomputers, minicomputers, and mainframes with attention to design, connection, and troubleshooting are examined. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 230 or equivalent.

EDP 235 ADVANCED SPREADSHEET APPLICATIONS

This advanced course in spreadsheet applications focuses on the development of spreadsheet templates and explores some of the concepts and techniques used with several popular software packages. Topics include

advanced worksheet procedures, functions, file linking and combining, graphics, database management, print options, and advanced macro programming. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 205 or equivalent.

EDP 237 ADVANCED DATABASE MANAGEMENT

This course in database management explores advanced database concepts and techniques. Several currently popular microcomputer database software packages are used. Topics include reports and statistics, custom screen design, working with multiple file database systems, and applications programming. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 180 or equivalent.

EDP 240 CICS

This course presents the information necessary to program on-line transaction oriented applications within an IBM mainframe COBOL environment. Topics include CICS/VS transaction flow, CICS/VS components, programming concepts, terminal control, program control, file control, addressability of data areas, basic mapping support, and testing and debugging programs. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 215 or equivalent.

EDP 251 C LANGUAGE III

This advanced course in C programming language focuses on developing professional, quality programs. Major topics include data structures, sorting, searching, accessing files and directories, operating system interaction, and character mode user interface development. The student designs, codes, tests, and debugs programs that use these features. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 152 or equivalent.

EDP 252 C LANGUAGE IV

This fourth course in C programming emphasizes program development within a window environment. Topics include outputting to a window, developing icons, composing and displaying menus, and using the clipboard. The course also looks at dialog boxes and bitmaps, as well as how programs make use of memory management features, fonts, color palettes, Dynamic Link Libraries, and Dynamic Link Exchange protocol. The student designs, codes, tests, and debugs programs that use these features. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 251 or equivalent.

EDP 290 WORK EXPERIENCE

This course presents an opportunity for the student to acquire on-the-job experience in a local business, industry, governmental agency, or educational environment. Learning objectives identified at the beginning of the quarter may include: increasing competencies in programming, hardware and software installation, oral and written presentations, developing good work habits, personal and professional development, and finding a job. Course Hours Per Week: Class, 1. Lab, 10. Quarter Hours Credit, 2. Prerequisite: EDP 152 or approval of program director.

EDP 1111 ASSEMBLER/MACHINE LANGUAGE

This course introduces the student to assembler and machine language programming for microcomputers and focuses on the history of the language, number systems, and data formats. Instruction sets are taught using microprocessor systems. The course is designed in sequential order to enable the student to relate the programming concepts to the hardware. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

Education

EDU 110 FRESHMAN SEMINAR

This course lays the groundwork for success in college. Designed for

first-time college students, the course provides an introduction to postsecondary study, presents strategies for academic success, and offers methods for self-assessment of skills and interests. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisite: None.

EDU 111 EMOTIONAL DEVELOPMENT I

This course is a study of the emotional development of infants, toddlers, and preschoolers with emphasis on self-concept development and the recognition, acceptance, and expression of feelings. The role of the caregiver in providing an appropriate role model, interpreting theory, assessing children, developing goals and objectives for children, and developing lesson plans are explored. In addition, the course focuses on recognizing emotional development problems and identifying alternative strategies for intervention. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 112 EMOTIONAL DEVELOPMENT II

This course, a continuation of Emotional Development I, focuses on the role of the caregiver in fostering emotional development. Emphasis is on interactional techniques between caregiver and children and on planning and implementing developmentally appropriate activities, space, equipment, and materials for the optimal emotional development of infants, toddlers, and preschoolers. In addition, the student learns techniques for adapting the environment for children with special needs and for assisting parents in recognizing and dealing with children's emotional development. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: EDU 111.

EDU 115 INTRODUCTION TO CHILD CARE

This course introduces the field of child care. The history and philosophy of child care are covered as a basis for understanding current programs and practices. The role of the caregiver in implementing a program is studied with emphasis on integrating values, developing professional behavior, planning for individual and group needs, and implementing the components of the environment and curriculum. In addition, the student examines issues relevant to the future of the child care profession. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: None.

EDU 116 CARE OF INFANTS AND TODDLERS

This course is designed for students interested in caring for small groups of children in their homes and for those wanting to provide child care in the homes of families seeking child care. The highly individualized needs of children in the infant-toddler age group requires special child care skills. Infant-toddler health and safety needs, and parent-child care give relationships are of particular concern to students wishing to work with this population. The physical, emotional, and language development of the infant-toddler are also areas requiring specific competencies and are components of the integrative care plan. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: None.

EDU 117 AFTER-SCHOOL CHILD CARE

This course introduces the student to the methods and procedures used in operating an after-school program in either a public or proprietary setting. Attention is given to the developmental needs of the school-aged child and to age-appropriate activities. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisite: None.

EDU 118 FAMILY INVOLVEMENT

This course examines the relationship between the family and the child care program. The student studies the family's influence on the child, the interaction between the parents and the caregiver, and the role of the caregiver in assisting the parents with child guidance. Course Hours Per Week: Class, 1. Quarter Hours Credit, 1. Prerequisite: None.

EDU 119 SPECIAL TOPICS IN CHILD CARE

This course is designed to help the student keep informed of current issues in the child care community. New research findings and chang-

ing social, economic, and political forces have affected programs and services for young children and their families. Teaching strategies that meet contemporary needs of this population are presented. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 121 SOCIAL DEVELOPMENT I

This course provides a study of the social development of infants, toddlers, and preschoolers. The role of the caregiver is emphasized in providing an appropriate role model, interpreting theory, assessing children, developing goals and objectives for children, and utilizing positive guidance and discipline techniques. In addition, the course focuses on recognizing social development problems and identifying alternative strategies for intervention. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 122 SOCIAL DEVELOPMENT II

This course, a continuation of Social Development I, focuses on the role of the caregiver in promoting positive social development. Emphasis is on developing lesson plans and planning and implementing developmentally appropriate space, equipment, materials, and activities for the optimal social development of infants, toddlers, and preschoolers. The student learns techniques for supervising and participating in social development activities and for adapting the environment for children with special needs. In addition, the student learns techniques for assisting parents in recognizing and dealing with children's social development. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: EDU 121.

EDU 125 PHYSICAL DEVELOPMENT I

This course is a study of the physical development of infants, toddlers, and preschoolers with emphasis on body growth, motor development, and perceptual development. The role of the caregiver in providing an appropriate role model, interpreting physical development theory, assessing children's physical development, and developing goals and objectives for children's physical development is explored. In addition, the course focuses on recognizing physical development problems and identifying alternative strategies for intervention. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 126 PHYSICAL DEVELOPMENT II

This course, a continuation of Physical Development I, focuses on the role of the caregiver in planning and implementing developmentally appropriate activities, space, equipment, and materials for the optimal physical development of infants, toddlers, and preschoolers. The student learns techniques for supervising and participating in physical development activities and for adapting the environment for children with special needs. In addition, the student learns techniques for educating parents regarding the importance of physical development. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: EDU 125.

EDU 130 COGNITIVE DEVELOPMENT I

This course is a study of the cognitive development of infants, toddlers, and preschoolers with emphasis on recognizing and understanding the sequential stages of development. The role of the caregiver in providing an appropriate role model; interpreting developmental theory; assessing cognitive development; and developing goals, objectives, and lesson plans is studied. In addition, the course focuses on recognizing cognitive development problems and identifying alternative strategies for intervention. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

EDU 131 COGNITIVE DEVELOPMENT II

This course, a continuation of Cognitive Development I, focuses on the role of the caregiver in planning and implementing developmentally appropriate space, equipment, materials, and activities for the optimal cognitive development of children from birth to age six. The student learns techniques for supervising and participating in cognitive development activities and for adapting the cognitive environment for children with

special needs. In addition, the student learns techniques for educating parents regarding the importance of children's cognitive development. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: EDU 130.

EDU 135 METHODS OF INSTRUCTION

This course develops specific skills in the art of teaching and special attention is given to writing performance objectives and lesson plans. Additional topics include using training aids, developing effective speaking techniques, constructing valid test items, evaluating performance achievements, and counseling students for academic improvement. The development of practical skills in the classroom is also emphasized. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

EDU 201 LANGUAGE DEVELOPMENT I

This course is a study of the language/communication development of infants, toddlers, and preschoolers. The role of the caregiver in providing an appropriate model; interpreting theory; assessing children; and developing goals, objectives, and lesson plans is emphasized. In addition, the student learns to recognize language/communication development problems and alternative strategies for intervention. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: None.

EDU 202 LANGUAGE DEVELOPMENT II

This course, a continuation of Language Development I, focuses on the caregiver's role in promoting language/communication development. Emphasis is on planning and implementing developmentally appropriate space, equipment, materials, and activities. The student learns interactional techniques which support and stimulate the development of language/communication skills. In addition, the student learns methods for adapting the environment for children with special needs and for educating parents regarding the importance of language/communication development. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: EDU 201.

EDU 206 ADJUSTMENT PROBLEMS

This course is a survey of the typical adjustment problems children experience during their preschool years. Attention is given to defining the range of normal behavior, knowing when and how to refer to an outside resource, and handling specific problems. Techniques for promoting desirable behaviors and for coping with undesirable behaviors are explored. In addition, the student learns techniques for assisting parents in recognizing and coping with adjustment problems. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisites: EDU 112, EDU 115, EDU 118, EDU 122.

EDU 215 CHILD CARE APPLICATIONS I

This seminar-practicum course is an advanced study of child care principles with emphasis on applying those skills necessary in providing a quality program environment for young children. The student is placed in a child care program to gain on-the-job experience in working with children and adults. Attention is given to developing the student's professional behavior and interpersonal communication skills. In addition, the student identifies goals, objectives, and strategies for improving child care competencies. Course Hours Per Week: Class, 5. Lab, 10. Quarter Hours Credit, 6. Prerequisites: EDU 112, EDU 115, EDU 118, EDU 122, EDU 126, EDU 131, HEA 101, HEA 102. Corequisites: EDU 202, EDU 206.

EDU 216 CHILD CARE APPLICATIONS II

In this continuation of Child Care Applications I, the student continues placement in a child care program to develop on-the-job experience in mastering the skills necessary for working with children and adults. Emphasis is on developing, implementing, and evaluating curriculum plans; preparing for child care employment; analyzing professional issues; and implementing, evaluating, and revising competency goals and objectives.

Course Hours Per Week: Class, 5. Lab, 20. Quarter Hours Credit, 7. Prerequisite: EDU 215.

EDU 218 EDUCATIONAL TRENDS

The course explores current child care issues, public policy addressing these issues, and ethical issues concerning the child care professional and parents. The student is introduced to the roles played by national, state, and local governments and professional organizations in assuring quality child care standards. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 220 CHILD CARE ADMINISTRATION

This course introduces the student to the principles of child care administration and covers planning, staffing, supervising, and directing. The course examines local and state regulatory and licensing requirements. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

Electricity

ELC 1101 INTRODUCTION TO ELECTRICITY

In this course, the student studies fundamental principles, concepts, and theories of direct and alternating current. Through lectures and lab experiences, the student examines relationships among resistance, current, voltage, capacitance, inductance, time constants, capacitive reactance, and inductive reactance in the context of simple series, parallel, and series parallel circuits. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6. Prerequisite: None.

ELC 1102 ELECTRICAL WIRING I

In this course, the student studies principles of residential wiring electrical symbols, circuits, conductors, controlled switches, convenience receptacles, heating units, water pumps, water heaters, dryers, ranges, and air conditioners. Study includes service entrances and equipment, as well as related calculations in compliance with the National Electrical Code. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6. Prerequisite: None.

ELC 1103 AC, MOTOR, AND TRANSFORMER THEORY

This course continues examining AC fundamentals and introduces the student to the principles and characteristics of direct and alternating current machines. Emphasis is on operational characteristics of transformers and motors, various types of single-phase and three-phase motors, direct current machines, motor starting, and speed control. Additional units include transformer losses, taps, delta connections, wye connections, and transformer banks. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6. Prerequisite: ELC 1101 or equivalent.

ELC 1104 ELECTRICAL WIRING II

In this course, the student studies principles of commercial and industrial wiring, conduit systems, bus ducts, and substation type service. Emphasis is on emergency power systems, overcurrent protection, short-circuit calculations, feeder calculations, and coordination of overcurrent protection in compliance with the National Electrical Code. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6. Prerequisite: ELC 1102 or equivalent.

ELC 1105 ELECTRICAL CONTROL SYSTEMS

In this course, the student studies principles of controlling direct and alternating current machines. Topics include industrial electrical symbols, ladder diagrams, logic functions, manual and magnetic starters, magnetic solenoids, relays, timers, and automatic control systems. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6. Prerequisite: None.

ELC 1106 BLUEPRINT READINGS AND NEC CALCULATIONS
In this course, the student gains experience in reading blueprints, designing electrical circuits, and making electrical calculations in compliance with the National Electrical Code. Emphasis is on design applications and calculations in compliance with the National Electrical Code. Emphasis is on design applications and calculations to residential, commercial, and industrial wiring installations. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: ELC 1102 or equivalent.

ELC 1109 MAINTENANCE AND TROUBLESHOOTING
In this course, the student practices periodic planned maintenance including checking brushes; cleaning relays, switches, motors, and control cabinets; and using solvents and lubricants. Motor care in a hostile environment, troubleshooting logic, fault isolation, testing, system analysis, and safety precautions are also covered. Course Hours Per Week: Class, 3. Lab, 3. Quarter Hours Credit, 4. Prerequisite: None.

ELC 1110 ELECTRONIC CONTROL SYSTEMS
This course examines the principles and applications of solid state control systems and industrial programmable control systems. Topics include solid state timers, solid state relays, and solid state sensors. Special emphasis is on programmable controllers. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6. Prerequisite: ELC 1105 or equivalent.

Electronics

ELN 100 INTRODUCTION TO ELECTRONICS
This course is a study of the fundamental principles, concepts, and theories of electronics. Emphasis is on solid state devices and their applications and includes diodes, bipolar transistors, field-effect transistors, photo-devices, special-purpose devices, and IC circuit packages. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: ELC 1101 or equivalent.

ELN 101 DC CIRCUIT ANALYSIS
This course is a study of the principles, concepts, and theories of DC electricity. Emphasis is on the relationships of and between resistance; current; voltage; capacitance; inductance; time constants; magnetics; and electrostatics in the context of series, parallel, and series-parallel circuits. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 7. Prerequisite: None. Corequisite: MAT 145.

ELN 102 AC CIRCUIT ANALYSIS
This course, a continuation of ELN 101, is a study of the AC fundamentals, principles, concepts, theories, and laws and relationships of and between impedance, current, voltage, capacitive reactance, and inductive reactance in the context of series, parallel, and series-parallel circuits. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 7. Prerequisite: ELN 101 or equivalent. Corequisite: MAT 146.

ELN 103 MECHANICAL PROCESSES FOR ELECTRONICS
This course introduces the student to shop safety procedures; hand tools; soldering and desoldering techniques; processes for electronic fabrication and construction; and material processes which include cutting, drilling, and filing. Course Hours Per Week: Class, 1. Lab, 3. Quarter Hours Credit, 2. Prerequisite: None.

ELN 105 INTRODUCTION TO ACTIVE DEVICES
This course is a study of active circuit devices through the techniques of graphical and numerical analysis. Topics include an introduction to semiconductor diodes, transistors, basic amplifier configurations, and device parameters. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6. Prerequisite: ELN 102 or equivalent.

ELN 201 CONSTRUCTION OF ELECTRONIC DEVICES
The course is a study in the manipulative skills and techniques required to design, construct, and fabricate electronic equipment. Techniques of chassis construction and printed circuit fabrication are also included. Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3. Prerequisites: DFT 201, ELN 103, ELN 219 or equivalents.

ELN 205 APPLICATION OF ACTIVE DEVICES I
This course focuses on circuit applications of active devices through the techniques of graphical and numerical circuit analysis. Topics include the bipolar transistor and field-effect transistor as active circuit elements in audio- and radio-frequency amplifiers and amplifier circuits. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6. Prerequisite: ELN 105 or equivalent.

ELN 216 PULSE AND WAVESHAPING CIRCUITS
This course is a study of pulse circuits and waveshaping fundamentals. Topics include diode and transistor switching action, differentiating and integration circuits, multivibrator circuits, triggering techniques, electronic logic, and logic circuits. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6. Prerequisites: ELN 105, MAT 147 or equivalents.

ELN 218 APPLICATION OF ACTIVE DEVICES II
This course focuses on applications of active devices through the techniques of graphical and numerical circuit analysis. Topics include feedback in amplifier circuits; sinusoidal oscillators; power amplifiers; power supplies; and thyristor devices to include the UJT, DIAC, SCR, TRIAC, and transducer. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6. Prerequisite: ELN 205 or equivalent.

ELN 219 LINEAR INTEGRATED CIRCUITS
This course is a study of the analysis and design of circuits which use linear integrated circuit chips. Topics include op-amps, active filters, timer circuits, comparator, summing amps, PLL circuits, and optoelectronic devices. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6. Prerequisite: ELN 218 or equivalent.

ELN 240 DIGITAL ELECTRONICS
This course is a study of combinational and sequential logic circuits using discrete and integrated components. Topics include binary arithmetic, numbering systems, Boolean algebra, storage, timing, gating, and counting. Typical applications in industry are presented. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 7. Prerequisites: ELN 105, MAT 147 or equivalents.

ELN 270 MICROPROCESSOR FUNDAMENTALS
This is an introductory course in microprocessor fundamentals. Topics are presented using a middle-ground approach between hardware and software and the universal concepts which apply to all models of microprocessors. A linear progression from fundamental principles to complete systems, covering both the Motorola MC 6800 family and Intel 8080 family of microprocessors, is included. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 7. Prerequisites: ELN 240, MAT 147 or equivalents.

ELN 280 MICROPROCESSOR APPLICATIONS
This advanced course in microcomputer systems covers microcomputer software development and hardware interfacing techniques using currently available microprocessor chips and system support chips. The use of special analytical equipment is included. Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 6. Prerequisites: ELN 219, ELN 240, ELN 270 or equivalents.

ELN 290 ROBOTICS I
This course introduces the field of robotics. Specific topics focus on the fundamentals of robotic operation which include AC and fluidic power, DC power and positioning, and basic microprocessor software and hard-

ware. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: ELN 270 or equivalent.

ELN 291 ROBOTICS II

This course covers associated robotic applications. Emphasis is on using of the microprocessor controller, data acquisition, data handling and conversion, voice synthesis, and robotic interfacing. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: ELN 290 or equivalent.

ELN 1010 SOLID STATE CIRCUITS/APPLICATIONS

This course examines the fundamental principles of electronic active devices. Topics include an introduction to semiconductor diodes, transistors, field effect transistors, DIAC's, and TRIAC's. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6. Prerequisite: ELC 1101.

ELN 1020 DIGITAL ELECTRONICS

This course examines combinational and sequential logic circuits using discrete and integrated components. Topics include a review of numbering systems, logic gates, evaluation of logic expressions, logic families, arithmetic logic units, flip flops, and memories. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6. Prerequisite: MAT 1103 or equivalent.

ELN 1030 MICROPROCESSOR FUNDAMENTALS

This is an introductory course in microprocessor fundamentals. Topics are presented using a middle-ground approach between hardware and software and the universal concepts which apply to all models of microprocessors. A linear progression from fundamental principles to complete systems, covering the Intel 8080 family of microprocessors, is discussed. A logic analysis approach to following program flow is also covered. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6. Prerequisites or Corequisites: EDP 1111, ELN 1020.

ELN 1040 ELECTRONIC SYSTEMS TROUBLESHOOTING AND REPAIR

This course examines the fundamental principles and techniques of electronic systems troubleshooting and repair. Topics include signal tracing procedures, test equipment, the safe operation of tools needed to troubleshoot and repair electronic systems, and soldering and desoldering techniques. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6. Prerequisites: ELC 1101, ELN 1010.

ELN 1050 COMPUTER SYSTEMS TROUBLESHOOTING

This course covers digital troubleshooting including tools and microprocessor troubleshooting theory. The fault-finding process using the logic analyzer, signature analyzer, and signal tracing with the oscilloscope is included. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6. Prerequisite: ELN 1030.

ELN 1101 INDUSTRIAL ELECTRONICS

This course covers power supplies, transducers, amplifiers, DC and AC motor speed controls, and digital logic circuits. Emphasis is on the application of these devices and techniques to industrial electronic systems and programmable controllers. Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 5. Prerequisite: ELC 1101 or equivalent.

English

ENG 090 BASIC ENGLISH I

This course introduces the basics of English grammar and spelling through writing exercises. Proofreading, parts of speech, and punctuation rules are also covered. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

ENG 100 BASIC ENGLISH II

As a continuation of ENG 090, this course focuses on sentence structure and composition. The student applies grammatical rules in writing paragraphs and essays. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: ENG 090 may be required based on placement test results.

ENG 101 COMMUNICATION SKILLS

This fundamental course in written communications is designed to enable the student to demonstrate proficiency in English grammar, sentence construction, mechanics and punctuation, and dictionary usage. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 100 and/or RED 100 may be required based on placement test results.

ENG 102 COMMUNICATION SKILLS

This course assists the student in applying the principles of English grammar, sentence structure, mechanics, usage, coherence, and unity in writing well developed paragraphs and, ultimately, in writing an essay. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 101.

ENG 103 COMMUNICATION SKILLS

This course expands the skills for essay writing and enables the student to master selected processes in composition and to prepare a documented research paper. Upon completion of this course, the student is able to utilize writing skills for specific needs. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 102.

ENG 110 WRITING FOR COLLEGE

Designed primarily for the college transfer student, this course focuses on developing college-level writing and research skills. The student concentrates on individual language problems through essays and other written assignments. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: ENG 100 may be required based on placement test results.

ENG 120 TECHNICAL REPORT WRITING

This course in the principles of effective technical communications enables the student to prepare an informal written report and a formal written report, to prepare and present an oral technical report, and to write coherent and effective business letters. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ENG 125 INTRODUCTION TO LITERATURE

This course is designed to enable the student to examine critically the four literary genres: poetry, drama, the novel, and the short story. The student will study representative works from each genre and demonstrate an understanding of these works and the strategies of the genre through class discussions and through the writing of critical essays. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 103.

ENG 130 CRITICAL THINKING AND WRITING

This course deals with the role of logic in writing to influence beliefs and presents the rudiments of logic necessary for well-organized and clearly written materials. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 103 or approval of program director.

ENG 151 COMPOSITION AND RHETORIC

This course covers the principles of clear, effective writing and critical reading. Emphasis is on writing papers in response to reading selections. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: ENG 110 or satisfactory score on placement test.

ENG 152 COMPOSITION AND LITERATURE

This composition course concentrates on analyzing and writing about literature. It includes readings in the novel, the short story, poetry, and drama. While building on the skills developed in ENG 151, ENG 152 introduces the student to basic research skills that are applied in writing a research paper. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: ENG 151.

ENG 161 NEWS WRITING

This course introduces the student to newspaper journalism, emphasizing how to write newspaper articles. The course teaches techniques of information gathering, organization of articles, and news style through extensive writing practice. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: ENG 151.

ENG 231 WORLD LITERATURE I

This course is a survey of world literature, from the classical age to 1800, emphasizing the development of the Western literary heritage. Attention is given to the historical and cultural background of literature. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: ENG 152.

ENG 232 WORLD LITERATURE II

This course is a continuation of World Literature I, from 1800 to the present. Attention is given to the historical and cultural background of the period. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: ENG 152.

ENG 233 SURVEY OF MEDIEVAL LITERATURE

This course is a survey of medieval literature, focusing on the Arthurian legends and the genre of the romance. Attention is given to the historical and cultural background of the period. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: ENG 152.

ENG 240 MAJOR AMERICAN AUTHORS

This course is an in-depth study of selected American writers. Attention is given to the American cultural milieu and its impact on the authors' work. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: ENG 152.

ENG 241 AMERICAN LITERATURE I

This course is a survey of American literature from the colonial period through the Civil War. Selected authors are examined in depth. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: ENG 152.

ENG 242 AMERICAN LITERATURE II

This course is a survey of American literature from the Civil War to the present. Selected authors are examined in depth. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: ENG 152.

ENG 250 MAJOR BRITISH AUTHORS

This course is an in-depth study of several important British authors and their works. Attention is given to British history and culture. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: ENG 152.

ENG 251 BRITISH LITERATURE I

This course is a survey of British literature from the Middle Ages through the eighteenth century. The works of Chaucer, Spenser, Shakespeare, and Milton are included. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: ENG 152.

ENG 252 BRITISH LITERATURE II

This course is a survey of British literature from the eighteenth century to the present. Included are the Romantics, the Victorians, and the Moderns. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: ENG 152.

ENG 1101 COMMUNICATION SKILLS I

This fundamental course in grammar and writing enables the student to demonstrate proficiency in English grammar, sentence construction, mechanics and punctuation, dictionary usage, and spelling. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 100 and/or RED 100 may be required based on placement test results.

ENG 1102 COMMUNICATION SKILLS II

This second-level course in written and oral language skills enables

the student to use technical and general vocabulary terms correctly, to recognize and use inductive and deductive reasoning procedures, to prepare a job application package, and to apply the principles of interpersonal communications. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 1101.

Fire Protection**FIP 101 INTRODUCTION TO FIRE PROTECTION**

This course covers the history and development of fire service. It includes an overview of the various problems encountered by fire service, provides possible solutions to these problems, and considers related agencies that may assist with these problems. General fire hazards and their causes are identified, and applications of sound fire protection principles are discussed. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

FIP 104 BUILDING CONSTRUCTION FOR THE FIRE SERVICE

This course examines the principles of building construction as they relate to fire operations. Special attention is paid to structural factors affecting building collapse and fire spread. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

FIP 115 FIRE PREVENTION

This course covers the principles and application of fire prevention in the community setting. Emphasis is on special problems and specific programs which affect fire prevention functions. Related agencies that can assist in fire prevention are examined. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

FIP 150 INTRODUCTION TO EMERGENCY MEDICINE/BASIC EMT

The course is designed as a Basic Emergency Medical Technician course and prepares the student to provide initial assessment and emergency management of illness and/or injury at this level of care. Basic life support skills and basic EMT skills are demonstrated and practiced. Proficiency in these skills is expected. Successful completion of the course allows the student to take the state EMT certification exam. Course Hours Per Week: Class, 7. Lab, 3. Quarter Hours Credit, 8. Prerequisite: None.

FIP 201 ARSON INVESTIGATION

This course focuses on determining the causes of accidental and incendiary fires, fire loss, and points of origin. The student acquires skills in recognizing arson and preserving the fire scene. Motives and methods for fire setting are covered in addition to investigative techniques. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

FIP 211 GRADING FIRE DEFENSES

This course focuses on the skills necessary to compute the ISO rating for a municipal fire protection system. Course study includes calculation of the required fire flows, equipment requirements, manpower levels, training standards, and response requirements. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

FIP 218 HAZARDOUS MATERIALS

This course focuses on handling hazardous materials. The student considers chemical behaviors and reactions, practical tactics, and comprehensive strategies for handling incidents ranging from small leaks to catastrophic explosions. Major topics include the chemistry of hazardous materials, preplanning for incidents, the systems analysis approach to incident management, and methods of handling incidents. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

FIP 220 FIRE STRATEGY

This course presents a systematic method of organizing data, resources, and decision-making skills into effective management of a fire situation. The course focuses on problem assessment techniques, decision models, and strategic applications at the fire scene. Emphasis is on developing the ability to manage a fire situation through preplanning, organizing, prioritizing, and formulating strategies. Extensive case studies and simulations provide the student with opportunities for skills development. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: FIP 101.

FIP 221 ADVANCED FIRE STRATEGY

This course focuses on multicompartment operations at significant fire, hazardous material, and natural disaster incidents. Principles of organization, operational requirements, and strategies and tactics of multicompartment operations are also emphasized. Case histories of major incidents and intensive experience on the fire simulator are provided. The course is based on materials from the National Fire Academy. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: FIP 220.

FIP 225 FIRE LAW

This course addresses the broad range of legal principles associated with the application of statutory, constitutional, and case law to the fire service. Emphasis is on the employment law in the areas of employee selection, promotion, and discipline. Other topics include civil liability for actions taken in the line of duty and principles of inspection enforcement and code compliance. Course Hours Per Week: Class 5. Quarter Hours Credit, 5. Prerequisite: None.

FIP 230 HYDRAULICS

This course examines the effect of pressure on water in fire pumping applications and develops the mathematical skills to compute the flow, friction loss, and pressure requirements for fire operations. Special attention is given to developing an understanding of the pressure-flow relationships and their application to a wide range of hydraulics problems. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

FIP 231 SPRINKLER AND STANDPIPE SYSTEMS

This course deals primarily with the physical layout of sprinkler systems, the variety of systems on the commercial market, and the water supply for sprinkler systems. It also covers the principles of inspections, surveys of sprinkler systems, and fireground support operations of those systems. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

FIP 235 FIRE INSPECTION

This course covers the fundamentals of fire inspection, emphasizes the standards and techniques for evaluating the degree of hazards, and gives consideration to practical recommendations. Reporting practices are also covered. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

FIP 250 FIRE MANAGEMENT I

This course presents an overview of past and present organizational structure within the fire services. Emphasis is on the diverse nature of modern fire service with its specialized functions of fire control, prevention, inspection, emergency medical services, and fire investigation. The course is one of a three-part series of courses constituting the Fire Management unit. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

FIP 251 FIRE MANAGEMENT II

This course focuses on the specific management approaches most useful in dealing with each of the major functional units of the fire service. These approaches include fire prevention, inspection services, fire suppression, medical and rescue services, fire and arson investigation, communica-

tions, and data processing and analysis. The course gives special attention to applying innovative management tools and modern technology to the unique needs in each of these special function areas. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

FIP 252 FIRE MANAGEMENT III

This course examines the traditional functions of budget development, training, and personnel administration and the less traditional areas of labor relations and productivity measurement and improvement. The course treats each of these subjects in depth and focuses on modern trends and innovative practices in these rapidly changing areas. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

FIP 260 DECISION ANALYSIS

This course presents a systematic study of the decision-making process and tools and techniques for achieving the most effective results. A number of organizational, structural, and statistical methods for making and evaluating decisions are examined. The development of creative problem-solving skills and elementary statistical analyses are emphasized. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

FIP 290 MASTER PLANNING

This course presents a process for developing a master plan for a municipal or county fire district. A comprehensive overview is provided of the procedures, methods, and information collection which must be followed to construct a viable plan. The course provides step-by-step instructions on how to construct a plan from the preliminary study phase through final implementation. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

French

FRE 151 ELEMENTARY FRENCH I

This course introduces the basic elements of French. Emphasis is on oral communication, with some cultural awareness incorporated into language usage. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

FRE 152 ELEMENTARY FRENCH II

As a continuation of FRE 151, this course further develops the student's knowledge of French. Emphasis continues to be on oral communication with some attention given to reading and writing. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: FRE 151.

FRE 153 ELEMENTARY FRENCH III

Building on previous courses, this course completes the introduction of the French language. Emphasis is on listening, speaking, reading, writing, and cultural awareness. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: FRE 152.

Geography

GEO 151 INTRODUCTION TO PHYSICAL GEOGRAPHY

This course is a study of the earth's land forms, soils, vegetation, and climates. It examines the interrelationship of people and the physical environment. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

Health

HEA 101 CHILD CARE SAFETY

This course introduces the student to the methods and procedures for safely operating a child care program. Particular emphasis is on the role and accountability of the caregiver in providing a safe environment. Techniques for teaching children safety rules are stressed. In addition, the student learns techniques for educating parents about safety. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

HEA 102 CHILD CARE HEALTH

This course focuses on promoting and maintaining the health of children in the child care program. Attention is given to the caregiver's role in providing a healthy environment, in educating children regarding health, in meeting children's health and nutritional needs, and in encouraging healthy practices in the home. The student also learns techniques for recognizing and helping the abused and/or neglected child. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

HEA 151 FIRST AID

This course covers the theory and practice of techniques used in field treatment of the more common injuries such as burns, lacerations, fractures, and snake bites as well as instruction in rescue work and mouth-to-mouth and artificial resuscitation. The student is prepared to be certified by the American Red Cross in First Aid and CPR. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

HEA 161 PERSONAL HEALTH AND HYGIENE

This course develops the student's awareness of the personal, community, and worldwide importance of health. Emphasis is on the physical, mental, and emotional aspects of the human body. The causes of and preventions for various health problems are also covered. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

History

HIS 151 WESTERN CIVILIZATION I

This course traces the history of Western civilization from antiquity to the mid-seventeenth century. Topics include the origin and growth of civilization in the ancient Near East, the birth and development of Western civilization in Greece, the triumph and failure of Rome, the continuation of Greco-Roman civilization in Byzantium, the decline and slow recovery of Western Europe during the Middle Ages, and the transformation and expansion of Western Europe under the impact of the Renaissance and the Protestant Revolt. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: Satisfactory score on placement test.

HIS 152 WESTERN CIVILIZATION II

This course traces the cultural, political, economic, and social history of Western civilization from the mid-seventeenth century to the present. Topics include Europe in the seventeenth and eighteenth centuries, the French Revolution and Napoleon, the industrial revolution, the growth of nationalism, the impact of imperialism, and the twentieth century. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: Satisfactory score on placement test.

HIS 211 ANCIENT HISTORY

This course traces the development of the cultural, intellectual, and political foundations of Western civilization. Topics include the civilizations of the near East, the rise of the Greek polis, the philosophy of classical Greece, the career of Alexander the Great, the Hellenistic era, the rise and fall of the Roman Empire, and the origins of Judaism and Christianity. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: Satisfactory score on placement test.

HIS 212 MEDIEVAL HISTORY

This course traces the cultural, political, economic, social, religious, and intellectual history of Europe during the Middle Ages. Topics include the Germanic invasions of Europe and the fall of the western Roman Empire, the Merovingian and Carolingian empires, the medieval church, feudalism and manorialism, the development of national monarchies in England and France, economic development and the growth of towns, and scholasticism and the rise of universities. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite or Corequisite: ENG 151.

HIS 213 MODERN EUROPE TO 1815

This course traces the cultural, political, economic, social, religious, and intellectual history of Europe from the end of the Middle Ages to 1815. Topics include the Renaissance, the Reformation and the religious wars of the fifteenth and sixteenth centuries, the rise of absolutism and overseas empires, the scientific revolution, the enlightenment, the French Revolution, and Napoleon. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite or Corequisite: ENG 151.

HIS 214 MODERN EUROPE SINCE 1815

This course traces the cultural, political, economic, social, religious, and intellectual history of Europe from 1815 to the present. Topics include the Congress of Vienna, liberalism, the revolutions of 1848, the French Second Empire, socialism and the growth of Marxism, imperialism, the Darwinian revolution, the unification of Germany and Italy, World War I, the Russian Revolution, the rise of fascism and national socialism, World War II, the Cold War, and the end of the Cold War. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite or Corequisite: ENG 151.

HIS 251 AMERICAN HISTORY I

This course is a survey of the historical developments in the United States from the colonial beginnings to 1865. Emphasis is on the major themes and interpretations of American history during this period. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

HIS 252 AMERICAN HISTORY II

This course surveys the historical developments in the United States from 1865 to the present. Emphasis is on the major themes and interpretations of American history during this period. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

Historic Preservation

HPT 1101 INTRODUCTION TO PRESERVATION

Historic preservation is a diverse field combining many different disciplines. This course explores the meaning and methods of preserving America's cultural heritage. Topics include American architectural styles, architectural terms, the history of the preservation movement, preservation legislation, and methods of preservation. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

HPT 1103 HISTORY OF BUILDING TECHNOLOGY

The technology of building has evolved throughout our American experience. These changes are important to American culture and are documented by existing older buildings. In this course the student develops an understanding of historic building technology and learns to identify historic techniques in masonry, building frames, mechanical systems, and interior and exterior finishes. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

HPT 1105 MASONRY AND PLASTER

This course is an introduction to the conservation and repair of masonry and plaster and involves the safe operation and care of masonry and

plaster tools. Major topics include masonry and plaster materials, methods of mortar analysis, bricklaying, masonry cleaning, masonry repair, and plaster repair. Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3. Prerequisite: None.

HPT 1106 TRADITIONAL CARPENTRY AND RESTORATION

This course introduces the traditional tools and construction techniques necessary for restoring log and timber frame buildings. The student develops skills and craftsmanship in using traditional and modern tools by working on historic buildings. Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3. Prerequisite: None.

HPT 1109 FINISHES AND PROTECTIVE COATINGS

This course covers the fundamentals of paints, painting, stains, and decorative finishes. Experience in applying the various materials and specialty finishes is acquired through on-site and shop practice. Major topics of study include materials, tools, surface preparation, application, paint failures and remedies, color mixing and matching, wood graining, and other specialty finishes. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: None.

HPT 1110 RESTORATION WORKSHOP

This course is a workshop in renovating and restoring buildings. Through hands-on work experience at historic sites, the student develops skills in building repair which includes masonry and carpentry. Course Hours Per Week: Class, 1. Lab, 9. Quarter Hours Credit, 4. Prerequisite: None.

Humanities

HUM 125 HUMANITIES THROUGH THE ARTS

This course is a survey of film, drama, music, literature, painting, sculpture, and architecture. Each art form is examined from the four perspectives of the historical context, elements of the art, form/meaning, and criticism/evaluation. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

Insurance

INS 215 LIFE AND HEALTH INSURANCE

This course deals with the traditional field of life and health insurance. The course focuses on solutions to risks associated with the loss of income and examines social security, workers' compensation, and other social insurance coverages. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

INS 216 PROPERTY AND CASUALTY INSURANCE

This course identifies and describes the risks and legal liability associated with the ownership of property. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

Industrial Science

ISC 120 FUNDAMENTALS OF ANALYTICAL MANAGEMENT

This course is an introductory survey of the principles and practices of industrial management. Topics include work measurement, project planning techniques, plant layout, and scheduling concepts. A special project is required. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

ISC 130 INDUSTRIAL SAFETY

This course focuses on the concepts and principles of modern industrial

safety and accident prevention. Case problems and class exercises illustrate and demonstrate accident investigation techniques, cost analysis, and OSHA regulations. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ISC 132 JOB ANALYSIS AND EVALUATION

This course is a survey of the field of wage and salary administration. Topics include job analysis, wage surveys, and salary plans. The point method of job analysis is emphasized through case problems and classroom exercises. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

ISC 220 METHODS AND TIME STUDY

This course is a study of various techniques used to establish engineered and nonengineered performance standards. Techniques examined include stopwatch time study, standard data, predetermined time value systems, and technical estimates. Laboratory exercises are used to illustrate various industrial timing devices and provide practice in developing performance standards. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: None.

ISC 226 PRODUCTION PLANNING AND CONTROL

This course covers the fundamentals of production planning, forecasting techniques, inventory control, and scheduling techniques. Material Requirements Planning (MRP) and Master Scheduling are demonstrated through laboratory exercises and case studies. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

ISC 231 MANUFACTURING PROCESSES

This introductory course surveys the physical and chemical characteristics of primary manufacturing materials. Industrial machinery, measuring devices, process control devices, manufacturing techniques, blueprint reading, and modern manufacturing practices are included. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

ISC 232 QUALITY CONTROL

This course provides the student with information and training in the techniques and utilization of modern statistical quality control. Case studies and course projects deal with sampling, reliability, testing methods, and control charting. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

ISC 234 INDUSTRIAL AUTOMATION AND ROBOTICS

This course examines the basic concepts of automation and robotics, considers current applications in the industrial setting, and explores the economic and social effects of this technology in the workplace. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ISC 236 PLANT LAYOUT

This course is a practical study of facility planning with emphasis on a structured approach to solving layout problems. The student is introduced to process charting, P-Q analysis, and operation charting as analytical techniques for investigating and solving layout problems. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

ISC 240 PROJECT MANAGEMENT

This course is a study of fundamental concepts associated with multi-task management and coordination. Application exercises are used to demonstrate various techniques discussed in the course. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

Paralegal

LEX 101 REAL PROPERTY

This course provides the student with the basic information, concepts,

and terminology necessary to perform in any phase of a real estate transaction. The purpose of the course is to prepare the student for the courses in title abstracting and real estate transactions. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

LEX 105 INTRODUCTION TO LAW

This course introduces the student to law and the paralegal profession. Terminology, court structure, and comparisons of civil and criminal law are presented. This course prepares the student for the future study of civil and criminal litigation. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

LEX 110 TRIAL PREPARATION

This course introduces the student to the laws of evidence and torts and explains the procedures to follow for preparing a civil case for trial. Civil and criminal law and civil and criminal procedures are compared. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

LEX 112 TITLE ABSTRACTING

This course examines the common types of real estate transactions and conveyances as well as the steps necessary to abstract a title. The course is taught in the Durham County Deed Vault where the student is trained in the necessary procedures for searching titles. The student prepares title abstracts, deeds, and other real estate instruments. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

LEX 120 LITIGATION

This course explains the uses of discovery techniques in preparing for litigation. In addition, the student traces a case from the preparation of a trial notebook through the trial, judgment, execution, and appeal. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

LEX 122 REAL ESTATE TRANSACTIONS

In this course the student prepares sample real estate packages including those for VA, FHA, and conventional loans. The course enables the paralegal to prepare real estate packages for closing. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

LEX 201 LEGAL RESEARCH

This course trains the student in the methods of legal research; proper citation of authority; and the proper use of legal treatises, reporters, and Shepard's citators. The course further covers the analysis of decisions and proper legal writing form and technique. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

LEX 205 ESTATE ADMINISTRATION

This course covers interviewing techniques and data gathering for preparing wills and estate plans. Basic estate and trust principles are introduced. The study includes preparing inventories, accounts, tax returns, and other documents for the administration of estates. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

LEX 210 COMMERCIAL LAW I

This course introduces the basic principles of the Uniform Commercial Code including contracts, negotiable instruments, bailments, and secured transactions. The course prepares the student for assisting attorneys with cases involving the Uniform Commercial Code. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

LEX 212 LEGAL WRITING

This course introduces the student to the various purposes, forms, and proper formats of legal writing. Planning and organizing content as well as the style of presentation are topics stressed. The most common forms of legal writing are studied in depth. A final project consisting of preparing a formal brief is required. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: LEX 201.

LEX 220 COMMERCIAL LAW II

This course examines the various forms of business organization and prepares the student to select the best form of business structure for a client's consideration. The use of the proper forms for establishing the chosen type of business structure is also covered. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: LEX 210.

LEX 225 LAW OFFICE MANAGEMENT

This course covers the organization and management of law offices and emphasizes the administrative systems and procedures of efficient law office operation. Topics include furnishings and layout; filing systems and systems for keeping track of deadlines; and accounting, billing, and time-keeping systems. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

LEX 230 FAMILY LAW

This course covers the legal obligations of the marriage contract, rights and privileges of the parties, the statutory grounds for divorce, defenses to divorce actions, and elements of a legal separation by court order or by mutual consent. Also covered are the drafting of pleadings and contractual agreements, study of family problems, juvenile courts, and legal proceedings in adoption and custody cases. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

Mathematics

MAT 090 BASIC MATHEMATICS I

This course is designed for the student who needs remediation in basic mathematics. The purpose of the course is to help the student understand the decimal system of numbers and develop accurate math skills in adding, subtracting, multiplying, and dividing with whole numbers and fractions. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

MAT 095 BASIC MATHEMATICS II

This course includes a review of fractions and emphasizes operations with decimals, ratio and proportion problems, measurement conversions, and percent problems. Optional units are also available for students with special needs or interests. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 090 may be required based on placement test results.

MAT 097 APPLIED MATHEMATICS

This course emphasizes problem-solving techniques and includes units on notated numbers, ratio and proportion, measurement theory, basic algebra, and charts and graphs. Special attention is given to the occupational application of the material presented. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 095 may be required based on placement test results.

MAT 110 BUSINESS MATHEMATICS

This course develops proficiency in mathematical computation in the areas of merchandising, finance, and accounting procedures. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 095 may be required based on placement test results.

MAT 120 ALGEBRA I

This course focuses on the fundamentals of algebra. Emphasis is on basic definitions and axioms, operations with signed numbers, factoring, solutions of linear and quadratic equations, inequalities, and operations with polynomials. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 095 may be required based on placement test results.

MAT 121 ALGEBRA II

This course expands the student's knowledge of the basics of algebra

and includes polynomials, rational expressions, linear equations, radical expressions, and quadratic equations. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 120 may be required based on placement test results.

MAT 122 ALGEBRA III

This preparatory course for MAT 171 covers exponents, roots and radicals, polynomials, relations and functions, first degree equations, and quadratic equations. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 121.

MAT 123 COLLEGE MATHEMATICS

This introductory course gives the student a foundation in contemporary mathematics and an appreciation of the uses of mathematics. Areas of study include linear equations, formulas, mathematics of business, and statistics. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 095 may be required based on placement test results.

MAT 125 MATH OF FINANCE

This course, designed for accounting majors, reviews fundamental arithmetic, basic algebraic operations, and various topics that represent problem areas found in accounting. Topics include fundamental statistical methods, common percentage problems, simple interest, compound interest and annuities, discounts, and depreciation. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 120 may be required based on placement test results.

MAT 129 BUSINESS STATISTICS

This course is designed to provide a working knowledge of statistics as they are used in business activities. Emphasis is placed on comprehending statistics found in business reports and on using statistics to make business predictions and estimates. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 120 or MAT 125.

MAT 131 INTEGRATED COLLEGE MATHEMATICS

In this course, the student applies mathematics in the health sciences. Topics include ratio and proportion, basic operations with algebraic expressions, factoring polynomials, operations with algebraic fractions, and solutions of linear equations in one and two variables and fractional equations. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 120 may be required based on placement test results.

MAT 135 PHARMACEUTICAL MATHEMATICS

This course introduces the student to the metric, apothecary, and avoirdupois systems of weight and volume and their application to solving pharmaceutical and dosage problems. Other topics include measured quantities, accuracy and deviation calculations, pharmaceutical abbreviations, and prescription and formulation format. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 097 may be required based on placement test results.

MAT 137 COMPUTER MATHEMATICS

This course presents the mathematics needed in programming from the programmer's viewpoint. Emphasis is on interpreting problems and developing the solution algorithms necessary for programming. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 121 may be required based on placement test results.

MAT 140 ALGEBRA

This course is a review of fractions and basic algebraic concepts. It continues with arithmetic operations, algebraic expressions, solutions of linear equations, quadratic equations, and evaluations of formulas. Emphasis is on solving application problems and algebraic manipulation of formulas. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 120 may be required based on placement test results.

MAT 141 GEOMETRY AND TRIGONOMETRY

This course is a continuation of MAT 140 and focuses on the basics of geometry. Topics include angles, measurement of angles, circles, triangles, the Pythagorean theorem and similar triangles, the sphere and cone, definitions of the trigonometric ratios, solutions of right triangles, the general angle, oblique triangle, and the graph of the sine function. Course Hours Per Week: Class 5. Quarter Hours Credit, 5. Prerequisite: MAT 140.

MAT 145 LINEAR ALGEBRA

This course provides the student with a review of basic algebraic operations including signed numbers, laws of exponents, linear equations and linear systems, rectangular coordinate systems, factorization of binomials and trinomials, scientific notation, evaluation of formulas, and ratio and proportion. Basic statistical concepts and the use of electronic calculators are also covered. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 121 may be required based on placement test results.

MAT 146 TRIGONOMETRY

This course covers advanced algebraic and trigonometric topics which include quadratic equations, fractional exponents and radicals, rational and irrational numbers, complex numbers and their application to electrical circuits, trigonometric functions for angles over 90 degrees, interpolation of tables, and laws of sines and cosines. Emphasis is on the graphs of trigonometric functions, especially the sine and cosine functions. Vector algebra is covered extensively including graphic representation of j -operators in both exponential and polar forms. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 145 or equivalent.

MAT 147 NONLINEAR ALGEBRA AND LOGIC

This course provides the student with an in-depth study of exponential and logarithmic equations and their respective graphs, antilogarithms, natural logarithms, and number bases. Other topics include introductions to Boolean algebra and analytic geometry (rectangular and polar coordinate system) and a study of function properties, limits, and the basic concepts of calculus. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 146 or equivalent.

MAT 151 TOPICS IN CONTEMPORARY MATHEMATICS

This survey course in mathematics is designed for the college transfer student pursuing the Associate in Arts degree. Topics include, but are not restricted to, sets, logic, probability, and statistics. Computer mathematics, geometry, and matrices and their applications may be included as time and interest permit. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 122 or satisfactory score on placement test.

MAT 152 FINANCIAL MATHEMATICS

This course introduces students to the time value of money. Topics include bank discount, simple interest, compound interest, compounding continuously, present value and amount, annuity functions, amortizations and sinking funds, life annuities, and life insurance. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 122 or satisfactory score on placement test.

MAT 171 COLLEGE ALGEBRA

This course is designed as a precalculus course covering the following topics: solving equations and inequalities; circles and distance; functions, their properties, and their graphs; linear, quadratic, polynomial, exponential, and logarithmic functions; and simultaneous equations and inequalities. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 122 or satisfactory score on placement test.

MAT 172 COLLEGE TRIGONOMETRY

This course is designed as a precalculus course covering the following topics: trigonometric functions and their graphs, triangles, trigonometric identities and equations, the Laws of Sine and Cosine, applications,

DeMoivre's theorem, vectors, polar coordinates, and application of matrices to vectors. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 171 or satisfactory score on placement test.

MAT 175 ELEMENTARY STATISTICS

This course introduces the meaning and use of basic statistical concepts and techniques. Topics include tables and graphs, measures of central tendency, standard deviation, probability, and random variables. Binomial, normal, and standard normal distributions are also covered. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 171.

MAT 201 CALCULUS WITH APPLICATIONS I

This course is designed for the Associate of Science student interested in a degree in economics, business, or the biological or behavioral sciences. Topics covered include limits, the derivative, techniques of differentiation, the exponential and logarithmic functions, and the definite integral. The emphasis throughout the course will be on applications drawn from business, economics, and the biological and behavioral sciences. Course Hours Per Week: Class, 6. Quarter Hours Credit, 6. Prerequisite: MAT 172 or satisfactory score on placement test.

MAT 202 CALCULUS WITH APPLICATIONS II

This continuation of MAT 201 covers trigonometric functions, integration techniques, multivariate functions, partial derivatives, double integrals, differential equations, Taylor polynomials, and infinite series. As with MAT 201, the course focuses on applications drawn from business, economics, and the biological and behavioral sciences. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 201 with a grade of C or better.

MAT 211 ANALYTIC GEOMETRY AND CALCULUS I

This course introduces the student to calculus. Topics include rectangular coordinates, algebraic and trigonometric functions, limits, asymptotes, differentiation, differentials, curve sketching, maximum and minimum values of functions, Newton's Method, practical applications of differentiation, and antidifferentiation. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 172 or satisfactory score on placement test.

MAT 212 ANALYTIC GEOMETRY AND CALCULUS II

This continuation of Analytic Geometry and Calculus I covers integration; practical applications of integration; transcendental functions including trigonometric, exponential, and logarithmic functions; and techniques of integration including integration by parts, trigonometric substitution, and partial fractions. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 211.

MAT 213 ANALYTIC GEOMETRY AND CALCULUS III

This continuation of Analytic Geometry and Calculus II covers rotation of axes, differentiation and integration of hyperbolic functions and polar equations, sequences and series, Taylor's theorem, and solutions of differential equations of the first and second order. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 212.

MAT 1040 TECHNICAL MATHEMATICS

This course is designed to provide the student with the mathematical proficiency needed for optical applications. Topics covered include the fundamental algebra, basic geometry, and trigonometry essential in solving problems and providing concepts in ophthalmic optics. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

MAT 1101 APPLIED MATHEMATICS

This course provides a review of fractional and decimal operations. The course also includes percent problems, measurement numbers, the metric system, exponents and roots, and basic algebra. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 095 may be required based on placement test results.

MAT 1103 APPLIED MATHEMATICS

This course covers ratio and proportion, practical geometry of plane and solid figures, graphs, and right triangle trigonometry. The student solves problems with practical applications to vocational areas. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 1101 or equivalent.

MAT 1123 MACHINIST MATHEMATICS

This course covers mathematical applications in the machine trade. Topics covered include principles of trigonometry, use of trigonometric tables, calculation of angles, pitch, threads, gears, cutting speeds and feeds, and use of shop mathematical tables. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 1103 or equivalent.

Mechanical

MEC 1101 MACHINE SHOP THEORY AND PRACTICE

This course introduces the metalworking trade as it relates to machining operations. Topics include orientation to the machine shop, safety procedures, basic hand tools, and shop measuring instruments. Course work is presented through competency-based modules. Course Hours Per Week: Class, 2, Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

MEC 1102-1108 MACHINE SHOP THEORY AND PRACTICE

Through this series of seven courses, the student learns new competencies by completing required learning modules. Assignments include instruction in layout, measurement, inspection, and set up and operation of one or more of the following machine tools: metal cutting saws, drill presses, milling machines, lathes, and grinders.

MEC 1102 MACHINE SHOP THEORY AND PRACTICE

Course Hours Per Week: Class, 2, Lab, 6. Quarter Hours Credit, 4. Prerequisite or Corequisite: MEC 1101.

MEC 1103-1108 MACHINE SHOP THEORY AND PRACTICE

Course Hours Per Week: Class, 2, Lab, 6. Quarter Hours Credit, 4. Prerequisite: MEC 1102 or equivalent.

MEC 1109 FUNDAMENTALS OF COMPUTER NUMERICAL CONTROL

This course introduces the fundamental concepts and skills necessary to program and operate computer numerical control (CNC) machines. Topics include the history, types, descriptions, capabilities, and applications of computer numerical control tools used in machining operations. Course Hours Per Week: Class, 2, Lab, 6. Quarter Hours Credit, 4. Prerequisite: MEC 1104 or equivalent.

MEC 1120 TOPICS IN MANUFACTURING TECHNOLOGY

This course focuses on new and emerging technologies that impact the manufacturing environment. Topics include: SPC, flexible manufacturing systems, innovations and trends in tooling, new materials used in metal fabrication, computer integrated manufacturing (CIM), coordinate measuring technology, fixturing, and tooling applications. Course Hours Per Week: Class, 3, Lab, 3. Quarter Hours Credit, 4. Prerequisite: MEC 1106.

Medical

MED 120 PATHOPHYSIOLOGY

This course provides the student with a basic study of human anatomy, physiology, and pathology to supplement studies in pharmacology and pharmacy. It covers a general study of each organ system and an overview of common diseases and infection control. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

MED 130 PHARMACOLOGY

This course is a comprehensive study of those drugs and medications commonly used in respiratory care or in cardiopulmonary medicine. Emphasis is on those drugs affecting the cardiovascular and respiratory systems as well as on the pharmacodynamics of drug action, correct drug usage, and administration. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

Music

MUS 101 MUSIC APPRECIATION

This introductory course in music is designed to enable the student to trace the historical development and pertinent criticism of music since 1600, to analyze different musical forms, and to establish intellectual relationships between music and general cultural developments. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

MUS 151 INTRODUCTION TO MUSIC

Using the fundamental elements of music as a lens, this course examines significant works of major composers from the baroque to the contemporary style periods. Through listening and analysis, the student acquires a capacity for aural recognition of representative musical forms and styles, and an understanding of classical music in relation to its historical and cultural background. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

Nursing

NUR 101 FUNDAMENTALS OF NURSING

This course is an introduction to the basic nursing competencies with emphasis on meeting needs common to all people. It is designed to orient the student to the wellness-illness continuum through utilization of the nursing process. The roles of the nurse are stressed by exploring fundamental nursing functions. The course includes developing the use of professional behavior. The course is composed of classroom, laboratory, and clinical experiences. Course Hours Per Week: Class, 5. Lab, 4. Clinical, 3. Quarter Hours Credit, 8. Prerequisite: Admission to ADN program and current CPR Course C certification. Prerequisites or Corequisites: BIO 160, EDP 101, NUT 101 or equivalents.

NUR 102 MEDICAL-SURGICAL NURSING I

This course provides basic theoretical information in the area of medical-surgical nursing. Throughout the course, the nursing process is stressed in the care of operative patients. The wellness-illness continuum is emphasized in the care of adult patients with disorders of the respiratory, cardiovascular, and gastrointestinal systems. Communication techniques, diet therapy, pharmacology, and specific patient teaching methods are included. Course Hours Per Week: Class, 6. Quarter Hours Credit, 6. Prerequisites: BIO 160, EDP 101, MAT 131, NUR 101, NUT 101. Corequisite: NUR 103. Prerequisites or Corequisites: PHM 102, PSY 110 or equivalents.

NUR 103 MEDICAL-SURGICAL NURSING I—CLINICAL

This clinical experiences course provides opportunities for the student to reality-test nursing knowledge and skills relevant to patients experiencing surgical procedures and disorders of the respiratory, cardiovascular, and gastrointestinal systems in a health care facility setting. Professional behaviors are fostered. A practice lab is included for increased nursing skills development. Course Hours Per Week: Class, 0. Lab, 2. Clinical, 12. Quarter Hours Credit, 5. Prerequisites: BIO 160, EDP 101, MAT 131, NUR 101, NUT 101. Corequisite: NUR 102. Prerequisites or Corequisites: PHM 102, PSY 110 or equivalents and current CPR Course C certification.

NUR 104 MEDICAL-SURGICAL NURSING II

This course is a continuation of the basic theoretical information begun in Medical-Surgical Nursing I. The nursing process, wellness-illness continuum, pharmacology, and diet therapy threads are maintained as the care of patients with disorders of the endocrine, nervous, sensory, urinary, reproductive, musculoskeletal, and integumentary systems are presented. Communication skills and care of the patient with infectious diseases and in emergency situations are included. Opportunities for increasing techniques for patient teaching are provided. Course Hours Per Week: Class, 6. Quarter Hours Credit, 6. Prerequisites: NUR 102, NUR 103. Corequisite: NUR 105. Prerequisite or Corequisite: BIO 240.

NUR 105 MEDICAL-SURGICAL NURSING II—CLINICAL

This clinical experiences course provides opportunities for the student to reality-test nursing knowledge and skills relevant to patients experiencing disorders of the endocrine, nervous, sensory, urinary, reproductive, musculoskeletal, and integumentary systems. Care of patients with infectious diseases is included. Practice in using therapeutic communication concepts with the patient and family is provided. A practice lab is included for increased nursing skills development. Course Hours Per Week: Class, 0. Lab, 2. Clinical, 12. Quarter Hours Credit, 5. Prerequisites: NUR 102, NUR 103. Corequisite: NUR 104. Prerequisite or Corequisite: BIO 240 and current CPR Course C certification.

NUR 106 CHILDBEARING FAMILY NURSING

This course introduces the basic and more complex concepts in obstetrical nursing. Nursing process and nursing diagnosis are used to assess the family, identify common problems, and plan family care during the antepartal, intrapartal, postpartal, and newborn periods. Common and more complex problems of the pregnancy and the newborn are discussed. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisites: NUR 104, NUR 105, PSY 160 or advanced placement. Corequisite: NUR 107.

NUR 107 CHILDBEARING FAMILY NURSING—CLINICAL

This clinical experiences course provides opportunities for the student to use the nursing process in the care of families in normal and more complex situations in the childbearing cycle. Course Hours Per Week: Class, 0. Lab, 2. Clinical, 12. Quarter Hours Credit, 5. Prerequisites: NUR 104, NUR 105, PSY 160 or advanced placement. Corequisite: NUR 106. Prerequisite or Corequisite: Current CPR Course C certification.

NUR 199 NURSING TRANSITION

This course is an orientation to the conceptual framework of the Associate Degree Nursing program, and is designed for the Licensed Practical Nurse entering the Associate Degree Nursing program with advanced standing. Emphasis is on professional development, therapeutic communication, the nursing process, basic physical assessment skills, patient teaching-patient learning, homeostatic mechanisms, pathophysiological processes with related nursing interventions for the respiratory/cardiovascular systems, and application of the nursing process in grieving and dying. Basic skills assessment is included. Course Hours Per Week: Class, 3. Lab, 4. Quarter Hours Credit, 5. Prerequisite: Graduation from a practical nursing program, licensure as a practical nurse in the state of North Carolina, and current CPR Course C certification. This course must be taken within two academic years prior to being accepted into the Associate Degree Nursing program. Prerequisites or Corequisites: BIO 161, BIO 240, EDP 101, MAT 131, PSY 110, PSY 160 or equivalents.

NUR 201 PEDIATRIC NURSING

This course provides the theoretical information in the nursing care of children and adolescents. Emphasis is on utilizing the nursing process in nursing care for children and adolescents as they adapt to their environment. Course Hours Per Week: Class, 6. Quarter Hours Credit, 6. Prerequisites: BIO 161, NUR 106, NUR 107. Corequisite: NUR 202.

NUR 202 PEDIATRIC NURSING—CLINICAL

Clinical experiences are provided for the student to build on previously acquired nursing knowledge and skills as well as content from selected arts and sciences. Concepts of normal growth and development and basic knowledge of common conditions occurring in children are used to plan nursing care based on individual needs. Family-centered care, health teaching, and the meaning and significance of the wellness-illness continuum are emphasized. Competencies of the associate degree nurse are integrated progressively as the roles of care provider, manager of care, and member within the profession are emphasized. Course Hours Per Week: Class, 0. Lab, 2. Clinical, 12. Quarter Hours Credit, 5. Prerequisites: BIO 161, NUR 106, NUR 107. Corequisite: NUR 201. Prerequisite or Corequisite: Current CPR Course C certification.

NUR 203 PSYCHIATRIC NURSING

This course is a continuation of the basic theoretical knowledge on communication skills and mental health concepts presented in the previous nursing courses. The nursing process, wellness-illness continuum, pharmacology, and diet therapy threads are maintained as the care of patients with organic and functional developmental or emotional disturbances is presented. The mental wellness-illness continuum, personality development, therapeutic process, community mental health resources, and legal considerations are included. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisites: NUR 104, NUR 105, PSY 171. Corequisite: NUR 204.

NUR 204 PSYCHIATRIC NURSING—CLINICAL

This clinical course provides an opportunity to reality-test the student's nursing knowledge and skills relevant to patients experiencing organic and functional developmental or emotional disturbances. The course introduces the student to the role and responsibilities of psychiatric nurses and their relationships with other members of the mental health team. Practice in using therapeutic communication concepts with patients, families, and groups is provided. Opportunity is also provided to observe, collect data, and interpret behavior in psychiatric facilities. Course Hours Per Week: Class, 0. Lab, 2. Clinical, 12. Quarter Hours Credit, 5. Prerequisites: NUR 104, NUR 105, PSY 171. Corequisite: NUR 203. Prerequisite or Corequisite: Current CPR Course C certification.

NUR 205 NURSING SEMINAR

This course covers the major issues and trends in nursing by emphasizing the constantly changing role of the nurse. Ethics, accountability, and professional growth are discussed. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisite: None.

NUR 206 MEDICAL-SURGICAL NURSING/ PATIENT CARE MANAGEMENT

This advanced medical-surgical nursing and patient care management course assists the student in synthesizing the nursing skills and theories as they apply to complex nursing care and to the management of groups of patients. Emphasis is on the health care system's structure and function as well as techniques of leadership, change, and management of work groups. Course Hours Per Week: Class, 7. Quarter Hours Credit, 7. Prerequisites: NUR 203, NUR 204. Corequisite: NUR 207.

NUR 207 MEDICAL-SURGICAL NURSING/ PATIENT CARE MANAGEMENT—CLINICAL

This clinical course encompasses complex theory and focuses on clinical competency in the performance of highly technical nursing measures. The health care facility provides an opportunity to synthesize previous learning and to reality-test acquired skills. Opportunities are also provided for students to develop leadership skills, manage groups, and explore methods of change. Course Hours Per Week: Class, 0. Lab, 2. Clinical, 15. Quarter Hours Credit, 6. Prerequisites: NUR 203, NUR 204. Corequisite: NUR 206. Prerequisite or Corequisite: Current CPR Course C certification.

NUR 1101 FUNDAMENTALS OF NURSING

This course introduces the profession of nursing and orients the student to the role of the practical nurse. Topics include modern health concepts, gerontology, the responsibilities of the nurse, interpersonal relationships, basic nursing procedures, and scientific problem-solving techniques. Course Hours Per Week: Class, 6. Lab, 6. Quarter Hours Credit, 8. Prerequisite: None.

NUR 1104 MEDICAL-SURGICAL NURSING I

This course covers the basic principles and practices of medical and surgical nursing. The student is introduced to deviations and/or altered functions of the body systems and to methods of diagnosis and treatment. Course Hours Per Week: Class, 4. Lab, 3. Quarter Hours Credit, 5. Prerequisites: BIO 120, EDP 103, NUR 1101, NUT 101, PHM 1101.

NUR 1105 MEDICAL-SURGICAL NURSING II

A continuation of Medical-Surgical Nursing I, this course focuses on the care of the adult patient. Emphasis is on the care of patients with problems associated with body disturbances interfering with normal nutrition, elimination, and fluid and electrolyte balance. Course Hours Per Week: Class, 7. Quarter Hours Credit, 7. Prerequisites: NUR 1104, NUR 1109, PHM 1102.

NUR 1106 MEDICAL-SURGICAL NURSING III

This course introduces the student to the care of patients with complex nursing needs. Emphasis is on the role of the practical nurse in situations requiring judgment based on previous experience and depth of knowledge. Anatomy, physiology, diet therapy, pharmacology, and the psychosocial aspects of caring for patients are other topics integrated throughout the course. Course Hours Per Week: Class, 6. Quarter Hours Credit, 6. Prerequisites: NUR 1105, NUR 1114, PSY 110.

NUR 1107 MATERNAL-CHILD HEALTH I

This course acquaints the student with the fundamentals of maternity nursing. Emphasis is on the scope and the aim of modern obstetrics; the responsibilities of the nurse in promoting prenatal care; the support nurses provide during pregnancy, labor, and delivery; and the care given to the normal newborn. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisites: BIO 120, EDP 103, NUR 1101, NUT 101, PHM 1101.

NUR 1108 MATERNAL-CHILD HEALTH II

This course is a continuation of NUR 1107 and emphasizes health teaching, evaluation, and comprehensive nursing care. The complications and pathological conditions related to maternity, infancy, childhood, and adolescence are also covered. Course Hours Per Week: Class, 6. Quarter Hours Credit, 6. Prerequisites: NUR 1104, NUR 1107, NUR 1109, PHM 1102.

NUR 1109 CLINICAL EXPERIENCE

Clinical activities are planned to assist the student in developing skills in medical and surgical basic nursing care and procedures in surgical nursing. Through working with individual patients in the medical and surgical hospital clinics, the student is encouraged to develop basic skills in analyzing patient needs and making nursing decisions. Course Hours Per Week: Class, 0. Clinical, 12. Quarter Hours Credit, 4. Prerequisites: BIO 120, EDP 103, NUR 1101, NUT 101, PHM 1101. Corequisite: NUR 1104.

NUR 1112 NURSING SEMINAR

This course includes the current trends in nursing and the legal and ethical responsibilities of the practical nurse. The course is based on knowledge accrued from previous nursing courses and aides the student by providing a review of nursing principles and practices. Psychiatric nursing and disaster nursing are also included. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisites: NUR 1105, NUR 1108, NUR 1114, PSY 110.

NUR 1114 CLINICAL EXPERIENCE

This course provides the student with clinical activities for developing skills in medical, surgical, and obstetrical nursing care. The student participates in planned experiences within the medical units of the hospital and also participates in independent study, problem-solving sessions, student presentations, and selected patient care assignments. Course Hours Per Week: Class, 0. Clinical, 15. Quarter Hours Credit, 5. Prerequisites: NUR 1104, NUR 1107, NUR 1109, PHM 1102. Corequisites: NUR 1105, NUR 1108.

NUR 1115 CLINICAL EXPERIENCE

This course is a continuation of NUR 1114 with supervised study for developing skills in medical, surgical, and pediatric nursing care. The student rotates through the basic clinical units of the hospital and participates in independent study, problem-solving sessions, student presentations, and selected patient care assignments. Course Hours Per Week: Class, 0. Clinical, 15. Quarter Hours Credit, 5. Prerequisites: NUR 1114, PSY 110. Corequisite: NUR 1106.

Nutrition

NUT 101 NUTRITION AND DIET THERAPY

This course focuses on basic facts about nutrition, food elements, and therapeutic diets. Emphasis is on health maintenance and nutritional care. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

Optical Laboratory Mechanics

OLM 1101 INTRODUCTION TO OPTICS

This course introduces the student to the training, skills, and certification of eyecare professionals. The student learns about the functions of ophthalmologists, optometrists, opticians, and optical laboratory mechanics and the environments in which they work. The student also learns about the operations of optical dispensaries, wholesale laboratories, and lens and equipment manufacturers. Other topics include the history of optics and eyewear, the professional characteristics of optical laboratory mechanics, and career information on employment as an optical laboratory mechanic. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

OLM 1102 SPECTACLE FABRICATION

This course introduces the fabrication of spectacles, lenses, and frames. Decentration, layout, cutting, and edging of lenses are introduced. Also included are lab safety, government standards, and the maintenance and repair of standard optical finishing laboratory equipment. Course Hours Per Week: Class, 0. Lab, 3. Quarter Hours Credit, 1. Prerequisite: None.

OLM 1103 BASIC LENS DESIGNS

This course is a study of single-vision lens designs of spherical, cylindrical, and prismatic power. The student learns to interpret ophthalmic prescriptions and select lenses to correct refractive errors. Other topics include refraction; lens optics; the characteristics of plus, minus, cylindrical, and prismatic lenses; lens aberrations; and corrected-curve lens designs. Students perform optical computations using basic lens formulas. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

OLM 1104 ADVANCED LENS DESIGNS

This course is a study of the types, sizes, and purposes of multifocal lenses and the relationship between the accommodative mechanism and multifocal optics. The student learns about the materials and manufacturing of multifocal lenses. Also included is the history of multifocal lenses

from Benjamin Franklin's invention of bifocals to modern ophthalmic reading segments and trifocals for the presbyopic patient. Other topics include the historical development of hard resin lenses, the advantages and disadvantages of hard resin lenses, and the patient's selection of these lenses. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

OLM 1111 BASIC FRAME AND LENS MECHANICS

This course provides a practical application of spectacle fabrication. Layout work, locating major reference points, and the cutting and edging of lenses are accomplished. Pattern making and marking are introduced. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: None.

OLM 1112 MULTIFOCAL LENS MECHANICS

This course extends basic lens mechanics to include multifocal lenses and spectacles. In addition to the fabrication and layout work associated with multifocal lenses, shop flow procedures and time allocation to the tasks are covered. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: None.

OLM 1113 SPECIAL LENS MECHANICS

This course provides continued practical application of spectacle fabrication. The uses of special lenses, prisms, and low-vision aids are covered in addition to the practical preparation of eyewear. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: OLM 1112.

OLM 1114 PRODUCTION LABORATORY

This course gives the student an opportunity to build skills in spectacle fabrication according to production laboratory procedures. The student prepares lenses and frames for finishing and safety-treatment and also aligns and inspects completed pairs of eyeglasses. Special frame and lens modification techniques are also introduced. Other topics include the operation of optical laboratory instruments, the calculation of optical laboratory formulas, and cost analyses for an optical production laboratory. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: None.

OLM 1120 BASIC SURFACING

This course provides the student with the skills necessary to surface lenses and perform the operations required in a lens surfacing laboratory. Laboratory safety, terminology, and lens designs and materials are covered. The student also performs optical laboratory calculations and computes job tickets. Emphasis is on lens layout and markup, lens generation, lens polishing and fining, and final lens inspection. Preventive maintenance and minor equipment repairs are also covered. Course Hours Per Week: Class, 3. Lab, 3. Quarter Hours Credit, 4. Prerequisite: None.

OLM 1131 FRAME AND LENS TYPES

This course is a study of the types of frame styles available and the functions of modern lens types. The student learns techniques for measuring frames and lenses according to the boxing system of measurement. The student also acquires skills in using alignment tools to prepare frames for standard alignment. Other topics include special frame modifications, absorptive lenses, and ANSI standards. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

OLM 1133 OPTICAL LABORATORY MANAGEMENT

This course covers the basic business management skills needed for employment in a finishing laboratory. Emphasis is on purchasing, pricing, inventory control, and office management. Also included is an in-depth study of certification and licensure requirements. Information pertinent to obtaining employment under current governmental regulations is also covered. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

OLM 1140 PROPERTIES OF LIGHT

This course introduces the student to the nature and behavior of light. Theories of light, electromagnetic spectrum, illumination and reflection, and refraction, are studied. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

OLM 1142 STRUCTURES AND FUNCTIONS OF THE EYE

This course provides an overview of the human eye, its role in vision, and its correction by ophthalmic devices. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

Opticianry

OPT 101 INTRODUCTION TO OPTICIANRY

This course is an introduction to the role of the optician in the optical industry. It provides an overview of the history and development of opticianry and ophthalmic eyewear. The metric system, physics of light, and optical terms are introduced. The student uses formulas necessary for work in the laboratory. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: None.

OPT 102 SINGLE-VISION LENS DESIGNS

This course is a study of spherical and cylindrical lens optics, astigmatism, lens aberrations, and corrected curve lenses. Computations involving spherical and cylindrical lens optics are stressed. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: OPT 101.

OPT 103 MULTIFOCAL LENS DESIGNS

This course covers the history of multifocals from Ben Franklin to modern ophthalmic addition segments, trifocals, and progressive lenses. Also included is a study of the different types, sizes, and settings of multifocal lenses; and candidates who qualify for multifocal lenses are identified. The use of CR-39 as a lens material is also studied. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: OPT 102.

OPT 104 ADVANCED THEORETICAL OPTICS

In this course the student performs advanced optical computations including lens tilt calculations, toric transposition, and vertical imbalance. The student learns to analyze prescriptions according to the classifications of anisometropia, to correct vertical imbalance, and to select segments for minimizing displacement, and to identify ophthalmic lenses. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisite: OPT 103.

OPT 111 SPHERICAL LENS SURFACING

This course introduces the beginning Opticianry student to the specific machinery and materials used in the surfacing of spherical lenses in an optical laboratory. The student learns to operate the focimeter in order to read plus and minus spherical lenses. The student also studies abrasives, calipers, and lens clocks. Material inspections, flowcharts, machinery maintenance and repair, and safety procedures are also covered. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: None.

OPT 112 SPHERO-CYLINDRICAL LENS SURFACING

In this course the student applies optical laboratory procedures to the surfacing of lenses. The student continues to develop proficiency in using optical lab equipment. Trueing techniques and template applications are emphasized. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisites: OPT 101, OPT 111

OPT 113 MULTIFOCAL LENS SURFACING

In this course the student learns surfacing procedures and calculations for all types of bifocals, trifocals, and invisible bifocals including the incorporation of prisms and cylinders in multifocal lenses. The student also

learns special procedures for processing plastic lenses. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: OPT 112.

OPT 114 BASIC SPECTACLE FINISHING

In this course the student uses automatic and hand-edging equipment to produce finished single-vision eyewear. Interpretation of ophthalmic prescriptions; patternmaking; and edging, mounting, aligning, and hardening lenses are covered. Benchwork procedures are also studied. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: OPT 113.

OPT 121 ANATOMY OF THE EYE

This course is a study of the anatomical composition of the eye and its associated structures. Emphasis is on the orbit, eyelids, lacrima, and muscles. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisite: None.

OPT 122 PHYSIOLOGY OF THE EYE

This course is a study of the function of the eye in the visual process. Emphasis is on the refractive media, the accommodative mechanism, muscle functions, and vision errors. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisite: OPT 121.

OPT 141 PHYSICAL OPTICS

This course is a study of the basic theories and properties of light including rectilinear propagation and reflection at plane and spherical surfaces. Refraction and critical angles are also studied. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: MAT 141, PHY 140.

OPT 142 GEOMETRICAL OPTICS

This course covers the refraction and behavior of light as it passes across spherical surfaces and through thin lenses, thick lenses, and prisms. The principles of selected optical instruments are also studied. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: OPT 141.

OPT 206 SPECIAL LENS DESIGNS

In this course the student studies the effects of magnification and prism in spectacles. The student learns to assemble Fresnel lenses and prisms and to perform measurements for aspheric lens spectacles. The student also learns to identify two lens systems and achromatic lenses. The course covers the identification and assembling of low-vision aids and unusual optical items. The student determines base curves and operates optical instruments for special lens designs. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: OPT 104.

OPT 214 MULTIFOCAL FINISHING

This course, a continuation of basic finishing operations, emphasizes building speed and accuracy on the focimeter and in marking, edging, and inserting multifocal lenses into assorted frames. Plastic lens finishing and tinting are covered. The student also learns soldering techniques for metal frame repair. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: OPT 114.

OPT 215 SPECIAL LENS FINISHING

This course covers all stages in the finishing of eyewear with an emphasis on accuracy. The student also learns to identify the special types of ophthalmic lenses. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: OPT 214.

OPT 216 LENS FINISHING PROFICIENCY

This course is a continued study of all stages of eyewear finishing with an emphasis on speed and accuracy. Attention is given to the craftsmanship of finishing operations. Continued work involving rimless and semi-rimless eyewear, faceting, and grooving is included. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: OPT 215.

OPT 231 FRAME AND LENS DISPENSING

This course covers the historical development of opticianry, the history of spectacles, and the terminology used to describe eyewear. The student performs frame and facial measurements and measures interpupillary distances. Frame selection, standard alignment of frames, and frame adjusting are covered. The student learns techniques for dispensing eyewear to the consumer and evaluating consumer success. All paperwork procedures such as completing job tickets and maintaining records are also covered in this course. Course Hours Per Week: Class, 5. Lab, 3. Quarter Hours Credit, 6. Prerequisite: None.

OPT 232 MULTIFOCAL LENS DISPENSING

In this course the student learns techniques for performing multifocal measurements and for selecting lenses and frames to meet the consumer's visual requirements and occupational needs. The student also learns techniques for fitting conventional and invisible multifocal eyewear and other presbyopic spectacles such as reading glasses and half-eyes. Evaluation of the consumer's success is also covered. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6. Prerequisite: OPT 231.

OPT 233 SPECIAL DISPENSING

This course covers radiation and the use of absorptive lenses to prevent its harmful effects. The student learns techniques for fitting cataract spectacles, for selecting low-vision aids for the consumer, and for addressing the visual problems of consumers with high myopic and prismatic prescriptions. The student also learns techniques for fitting corrective eyewear for children. ANSI standards and the fitting of safety eyewear are also covered. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6. Prerequisite: OPT 232.

OPT 261 RIGID CONTACT LENSES

This course introduces the student to contact lenses beginning with the historical development of contact lenses and proceeding through modern materials and manufacturing techniques for rigid contact lenses. Clinical applications, including patient selection and rigid contact lens fitting techniques, are stressed. Use of contact lens-related instruments, including the keratometer, radiuscope, diameter gauge, and thickness gauge are covered in the laboratory. Course Hours Per Week: Class, 3. Lab, 3. Quarter Hours Credit, 4. Prerequisite: OPT 122.

OPT 262 FLEXIBLE CONTACT LENSES

This course introduces the student to flexible contact lenses. The physiology of the cornea as it is related to gas permeability of lens material is discussed. Fitting techniques for flexible contact lenses are stressed; and lens verification methods, including the use of the radiuscope, are covered in the laboratory. Brands of both rigid and flexible contact lenses and their associated lens care products are discussed. Course Hours Per Week: Class, 3. Lab, 3. Quarter Hours Credit, 4. Prerequisite: OPT 261.

OPT 263 SPECIAL CONTACT LENSES

This course continues the study of contact lenses to include the newest types of lenses, lens materials, and fitting techniques. Keratotomy and implications for subsequent contact lens therapy are discussed. Advanced fitting techniques for multifocal and aphakic lenses are included. Gas permeable lenses and extended-wear lenses are examined, and Food and Drug Administration requirements are discussed. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: OPT 262.

OPT 282 OPTICIANRY CLINICAL

This course provides the student with on-the-job training and experience in a variety of opticianry settings. The student acquires practical skills in dispensing eyeglasses and contact lenses in retail optical shops and in the offices of optometrists and ophthalmologists. The course emphasizes experience in optician-to-patient contact in facial measurements for eyeglasses, frame selection, adjustment and repair of eyeglasses, contact lens fitting techniques, and patient evaluation. Course Hours Per Week:

Class, 0. Clinical, 6. Quarter Hours Credit, 2. Prerequisites: OPT 232, OPT 262. Corequisites: OPT 233, OPT 263.

Phlebotomy

PBT 1101 BASIC PHLEBOTOMY CONCEPTS

This course introduces the student to the basic concepts of phlebotomy and the health care environment. Topics include the health care delivery systems, anatomy and physiology, collection equipment, blood collection procedures, infection control, specimen processing, quality control, and laboratory safety. Course Hours Per Week: Class, 9. Lab, 2. Quarter Hours Credit, 10. Corequisites: PBT 1105, PSY 108.

PBT 1105 PHLEBOTOMY CLINICAL EXPERIENCE

The course focuses on blood collection procedures with patients and allows the student to perform venipuncture and microcollection techniques in a clinical facility. In addition, basic computer applications are presented. Course Hours Per Week: Class, 0. Clinical, 12. Quarter Hours Credit, 4. Corequisites: PBT 1101, PSY 108.

Physical Education

PED 151 HEALTH AND WELLNESS

This course focuses on wellness through the study of nutrition, weight control, stress management, substance abuse, and consumer facts on exercise and fitness. The student is prepared to plan a personal lifelong fitness program based on individual needs, abilities, and interests. A special fee may be required. Course Hours Per Week: Class, 1. Lab, 2. Quarter Hours Credit, 2. Prerequisite: None.

PED 161 PHYSICAL CONDITIONING

This course improves strength, flexibility, and endurance and prepares the student to participate in a cardiovascular fitness exercise program. A special fee may be required. Course Hours Per Week: Class, 0. Lab, 2. Quarter Hours Credit, 1. Prerequisite: None.

PED 171 AEROBICS I

This course is designed to improve cardiovascular endurance and prepares the student to participate in a physical conditioning program combining movement with music. A special fee may be required. Course Hours Per Week: Class, 0. Lab, 2. Quarter Hours Credit, 1. Prerequisite: None.

PED 172 AEROBICS II

In this continuation of PED 171, the student participates in a physical conditioning program combining movement with music. A special fee may be required. Course Hours Per Week: Class, 0. Lab, 2. Quarter Hours Credit, 1. Prerequisite: PED 171.

PED 181 JOGGING

This course provides the student with the basic concepts for safely and effectively improving general physical fitness and cardiovascular conditioning. The course includes a physical fitness appraisal for beginning and continuing a jogging program to maintain an appropriate state of physical fitness. A special fee may be required. Course Hours Per Week: Class, 0. Lab, 2. Quarter Hours Credit, 1. Prerequisite: None.

PED 191 SELF-DEFENSE

This course aids students in developing such rudimentary skills in self-defense as stances, blocks, punches, and kicks. The course also focuses on non-physical means of self-defense. Course Hours Per Week: Class, 0. Lab, 2. Quarter Hours Credit, 1. Prerequisite: None.

PED 211 TENNIS

This course introduces the beginner to the game of tennis as a relaxing means of developing physical fitness. The course covers the fundamental rules, skills, and strategies of tennis. A history of the game is also included. A special fee may be required. Course Hours Per Week: Class, 0. Lab, 2. Quarter Hours Credit, 1. Prerequisite: None.

PED 221 BOWLING

This course emphasizes ball delivery, game rules, and lane etiquette and prepares the student for recreational bowling. Practice will be off-campus. A special fee may be required. Course Hours Per Week: Class, 0. Lab, 2. Quarter Hours Credit, 1. Prerequisite: None.

PED 231 SWIMMING

This course is designed for non-swimmers and beginning swimmers. Emphasis is on developing confidence in the water, learning water safety, and acquiring skills in floating and elementary strokes. The student is prepared to complete the Red Cross beginner skills test. Practice will be off-campus. A special fee may be required. Course Hours Per Week: Class, 0. Lab, 2. Quarter Hours Credit, 1. Prerequisite: None.

PED 241 GOLF

This course emphasizes the golf swing, games rules, use of clubs, various shots, and course etiquette and prepares the student to use fundamentally sound strokes in a round of golf. Practice will be off-campus. A special fee may be required. Course Hours Per Week: Class, 0. Lab, 2. Quarter Hours Credit, 1. Prerequisite: None.

PED 251 VOLLEYBALL

This course emphasizes skill development in passing, setting, spiking, blocking, and serving power volleyball. The student is prepared to play recreational and competitive volleyball. A special fee may be required. Course Hours Per Week: Class, 0. Lab, 2. Quarter Hours Credit, 1. Prerequisite: None.

PED 261 MODERN DANCE

This course enables the student to develop and improve the fundamental skills in dance movements and techniques. Upon completion of the course, the student has an understanding of dance as an art form and demonstrates basic dance movements and techniques. Course Hours Per Week: Class, 0. Lab, 2. Quarter Hours Credit, 1. Prerequisite: None.

PED 271 RACQUETBALL

This course emphasizes the rules, fundamentals, and strategies of beginning racquetball and prepares the student to play recreational racquetball. Practice will be off-campus. A special fee may be required. Course Hours Per Week: Class, 0. Lab, 2. Quarter Hours Credit, 1. Prerequisite: None.

PED 281 BASKETBALL

This course emphasizes skill development, knowledge of rules, and an understanding of game strategy. The student is prepared to play basketball on a recreational level. Course Hours Per Week: Class, 0. Lab, 2. Quarter Hours Credit, 1. Prerequisite: None.

Philosophy

PHI 101 STUDIES IN PHILOSOPHY

This introductory course in philosophy is designed to enable the student to use the historical approach in understanding philosophy; to analyze the basic concepts, themes, theories, and arguments of ancient, modern, and contemporary philosophers as well as the different philosophical problems which arise in the ever-changing yet constant areas of life; and to develop a capacity for philosophical thinking. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

PHI 201 INTRODUCTION TO PHILOSOPHY

This course is an introduction to the study of philosophy as reflected in selected literary, religious, scientific, and philosophical works. The student acquires an understanding of the basic concepts, themes, theories, and arguments of ancient, modern, and contemporary philosophers. The student also develops a capacity for philosophical thinking. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

PHI 202 INTRODUCTION TO ETHICS

This course is an introduction to the study of ethical problems and philosophical questions which have their origin in the thinking of moral philosophers through the ages. Upon completion of this course, the student is able to apply philosophical analysis to moral issues. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

Pharmacy

PHM 101 INTRODUCTION TO PHARMACY

This course introduces pharmacy practice and the technician's role in hospital and community pharmacies. Topics include the pharmacy environment, pharmacy organization and management, pharmacy standards and regulations, professionalism, work ethics, and pricing and payment strategies. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None. Corequisite: PHM 105.

PHM 102 PHARMACOLOGY

This course introduces the student to the basic concepts of pharmacology and reviews the action and uses of the major drug groups. Measurement systems and routine dosage calculations and adjustments are included in the course. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: BIO 160.

PHM 105 HOSPITAL PHARMACY I

This course focuses on the technical procedures for safely and accurately preparing and dispensing drugs in the hospital setting under the supervision of a registered pharmacist. The course includes a review of the hospital pharmacy environment; sterile and nonsterile compounding; packaging and labeling; purchasing and inventory control; and both theory and practice of outpatient, inpatient, and controlled drug dispensing systems. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None. Corequisite: PHM 101.

PHM 110 HOSPITAL PHARMACY II

This course completes the study of the technical procedures associated with preparing and dispensing of drugs while under the supervision of a registered pharmacist. Topics include a review of unit-dose dispensing, aseptic technique, intravenous admixture systems, and computerized dispensing systems. Course Hours Per Week: Class, 3. Lab, 4. Quarter Hours Credit, 5. Prerequisites: MAT 135, PHM 101, PHM 105.

PHM 115 PHARMACOLOGY I

An introduction to drug products, this course includes the most commonly encountered drugs in each therapeutic category. The course acquaints the student with the generic and trade names of commonly used drugs, with their actions and general uses, and with important contraindications in the treatment of disease states. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

PHM 120 COMMUNITY PHARMACY

This course provides the student with a working knowledge of the procedures, operations, and theories relating to community and retail pharmacy. Emphasis is on a general knowledge of over-the-counter products, prescription processing and pricing, business-inventory management, patient services, and special health aids. Course Hours Per Week: Class, 3. Lab, 4. Quarter Hours Credit, 5. Prerequisites: MAT 135, PHM 101, PHM 105.

PHM 125 PHARMACOLOGY II

Following the sequence of study in the major drug groups, this course completes the introductory study of the most commonly encountered drugs. Topics include the generic and trade names, drug's actions and uses, and important contraindications. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

PHM 130 PHARMACY CLINICAL

This course provides the student with on-the-job training and experience in a variety of hospital and community pharmacy settings. The course emphasizes practical experience in outpatient dispensing, inpatient dispensing, unit dose systems, IV admixture systems, chemotherapy dispensing, bulk and sterile compounding, purchasing, and inventory control. Course Hours Per Week: Class, 0. Clinical, 24. Quarter Hours Credit, 8. Prerequisites: PHM 110, PHM 115, PHM 120, SEC 111. Corequisites: PHM 125, PHM 140.

PHM 140 PHARMACY SEMINAR

This course covers the major issues and trends in pharmacy practice by emphasizing the increasing role of the pharmacy technician. Professional ethics, pharmacy law, continuing education, job opportunities, and the latest developments in pharmacy technician practice are discussed. The course includes guest speakers, field trips, and active classroom discussion of clinical experiences. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisites: PHM 110, PHM 120. Corequisite: PHM 130.

PHM 1101 PHARMACOLOGY I

This course assists the student in acquiring an understanding of drugs. It reviews mathematical principles related to drug therapy, introduces the calculation of fractional dosage, and stresses the principles of safe preparation and administration of drugs. Drug standards and legal implications are correlated to the role of the practical nurse. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: MAT 095 may be required based on placement test results.

PHM 1102 PHARMACOLOGY II

This course provides a further study of drugs used in the diagnosis, cure, or prevention of diseases. The course enables the student to become aware of the therapeutic uses, actions, and contraindications of drugs needed for safe nursing care. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisites: BIO 120, EDP 103, NUR 1101, NUT 101, PHM 1101.

Physics

PHY 120 SEMICONDUCTOR PHYSICS

This course introduces solid state physics and emphasizes semiconductors. Topics include quantum physics, the atom, solid state devices, and semiconductor and integrated circuit fabrication techniques. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisites: CHM 140, ELN 105, SCT 101 or equivalents.

PHY 130 PHYSICS

This course covers the principles of physics applicable to the health sciences. Topics include a study of the physical properties of liquids and gases, the circulatory system, medical applications of pressure and fluid flow, molecular phenomena, temperature, the effects of heat, electricity, bioelectricity, and clinical applications. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: MAT 120 or MAT 131 or equivalent.

PHY 140 PHYSICS

This course introduces the basic principles of physics and emphasizes the physical properties of optical materials. The student is introduced to the

fundamentals of mechanics, heat, wave motion, electricity, electromagnetic waves, and light as a basis for geometric optics. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

PHY 145 PHYSICS

This course introduces physical principles and their application in industry. Topics include measurements, properties of matter, vectors, motion, force, work, energy, power, simple machines, and fluids. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

PHY 146 PHYSICS

This second course in the application of physics in industry includes the principles of heat, wave motion, sound and acoustics, light, and atomic and solid state physics. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: PHY 145.

PHY 151 GENERAL PHYSICS I

This course is the introduction to a three-quarter sequence of courses in general physics. The course covers the fundamental concepts of mechanics, vectors, statics, dynamics, and rotational motion. No previous knowledge of physics is assumed, and the level of mathematics does not require calculus. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: MAT 171.

PHY 152 GENERAL PHYSICS II

This course is a continuation of PHY 151. Topics covered include the basic concepts of heat, kinetic theory, gases and liquids, wave motion, sound, and optics. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: PHY 151.

PHY 153 GENERAL PHYSICS III

This course is the final segment of the sequence in general physics. The basic concepts of electricity and magnetism, modern physics, nuclear physics, and special relativity are covered. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: PHY 152.

PHY 190 DESCRIPTIVE ASTRONOMY

This course in elementary descriptive astronomy includes a study of the solar system, stars, galaxies, and the universe as a whole on a non-mathematical basis. A study of the instruments and techniques of astronomers is provided. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

PHY 211 PHYSICS I

This course covers the fundamentals of elementary physics with calculus-based mathematical models. Topics covered include kinematics and dynamics of particles, Newton's Laws, work, energy, and two-dimensional rigid body mechanics. Laboratory work provides experimental verification of physical principles. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Corequisite: MAT 211.

PHY 212 PHYSICS II

This continuation of PHY 211 introduces fluid statics, basic concepts of fluid dynamics, elastic deformations, and heat. Laboratory work provides experimental verification of physical principles. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: PHY 211. Corequisite: MAT 212.

PHY 213 PHYSICS III

This continuation of PHY 212 covers wave propagation, sound, light, electricity, and magnetism. Laboratory work provides experimental verification of physical principles. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: PHY 212. Corequisite: MAT 213.

PHY 1111 APPLIED SCIENCE

This course introduces physical principles and their application in industry. Topics include measurements, properties of matter, basic electrical prin-

ciples, and heat. Principles of force, friction, work, energy, power and torque, electrical motors, and power transfer are also studied. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

Political Science

POL 110 STATE AND LOCAL GOVERNMENT

This course is a study of the relationships between state and local governments. Emphasis is on problems of administration, revenues, appropriations, and the historical development of government in North Carolina. The course is designed to enable the student to understand basic concepts of government, the powers and functions of the two levels of government, and the social elements of state politics. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

POL 201 AMERICAN GOVERNMENT

This course is a study of the organization and political functions of American national government. Emphasis is on the constitution's framework, federalism, political behavior, the powers and functions of the three governmental branches, civil liberties, foreign policy, and national defense. The student gains an understanding of the basic processes and issues of the American political system. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

Psychology

PSY 101 PSYCHOLOGY OF HUMAN BEHAVIOR

This introductory course in psychology provides an understanding of and appreciation for the scientific approach to the study of human behavior. The course integrates the physiological, intrapsychic, and social/behavioral perspectives on human behavior and human thought. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

PSY 108 HUMAN BEHAVIOR

This course provides the student with an understanding of the basic concepts of communication and professional behavior in the health care environment. Topics include communication skills, personal and patient interaction, stress management, professional protocol, and the legal implications of the work environment. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Corequisites: PBT 1101, PBT 1105.

PSY 110 GENERAL PSYCHOLOGY

This introductory study of psychology is designed to enable students to understand themselves in relationship to their environment and to understand the basic principles of human behavior. The course is recommended as a foundation course for students who plan further study in psychology. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

PSY 111 CREATIVE PROBLEM SOLVING

This course is a practical and academic approach to the use of imagination and creativity. Accenting the visual aspects of problem solving, this course enables the student to understand the aspects of imagination and creativity; to recognize and use procedures of solution; to know and use methods of generating ideas; and to know the fundamentals of group process. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

PSY 120 ADOLESCENT PSYCHOLOGY

This study of theory and research on adolescent development is designed to enable the student to understand theories of adolescence and issues relating to adolescent development; to analyze the physical, emotional,

social, and intellectual approaches to adolescent development; and to understand how theories of adolescent behavior may be applied to real-life situations. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

PSY 125 PSYCHOLOGY OF STRESS

This course deals with the practical applications of the principles of psychology to problems existing in the work environment. Stress awareness, diagnosis, and treatment are emphasized. Alcohol and drug abuse are treated as stress-related diseases. The psychology of motivation and creative problem solving are also discussed in their application to public sector employment. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

PSY 151 INTRODUCTION TO PSYCHOLOGY

This course provides an intensive study of introductory topics in the science of behavior including research strategies, biological bases of behavior, sensation and perception, motivation, learning and memory, maturation and development, personality theory, abnormal behavior, and social psychology. Emphasis is on psychological theory and principles. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

PSY 160 GROWTH AND DEVELOPMENT THROUGH THE LIFE SPAN

This course deals with human development in terms of its history, learning processes, and various developmental theories with applications to the stages of the life span from neonate to adult. A brief review of the anatomical and physiological components of heredity, prenatal development, and birth is included. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

PSY 171 ABNORMAL PSYCHOLOGY

This survey of behavioral disorders enables the student to understand the psychological origins of various mental and emotional problems, to understand their relationship to current concepts of normal personality, and to understand the types of treatments available for dealing with these disorders. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

PSY 201 DEVELOPMENTAL PSYCHOLOGY

This course examines the physical, cognitive, and social development of the individual across the life span with an emphasis on current research and theories. Course work includes projects. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: PSY 151.

PSY 210 PSYCHOLOGY OF ABNORMAL BEHAVIOR

This course examines major behavioral disorders with an emphasis on etiology and treatment. The course focuses on issues of diagnosis and assessment. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: PSY 151.

Reading

RED 090 READING SKILLS I

This course is designed to enable the student to correct reading deficiencies by building vocabulary skills, developing word skills, and improving basic comprehension skills. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

RED 095 READING SKILLS II

As a continuation of RED 090, this course focuses on improving reading comprehension and building vocabulary skills. The student continues to practice study skills and reading in content areas. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: RED 090 may be required based on placement test results.

RED 100 READING ADVANCEMENT

This course is designed to further improve the student's reading skills by focusing on comprehension skills, skimming and scanning skills, vocabulary building, and critical reading skills. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: RED 095 may be required based on placement test results.

RED 110 CRITICAL READING FOR COLLEGE

This course is designed to prepare the student for college-level reading by improving reading comprehension and vocabulary. The student practices critical thinking and study skills helpful for reading well in content areas. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: RED 100 may be required based on placement test results.

Religion

REL 151 WORLD RELIGIONS

This course introduces the student to the history, beliefs, rituals, and institutions of selected religious traditions. Various religious concepts, such as the existence and the nature of deity, are examined. Emphasis is on the nature of religious experience and the categories of religious thought. The student analyzes the interaction of religious practices and cultural values. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

Respiratory Care

RTH 101 BASIC THERAPY

The role of the respiratory care practitioner in interacting with the patient and other health care members is introduced. Emphasis is on medical terminology, basic nursing care techniques, basic antiseptic techniques, and the foundations of respiratory system anatomy and physiology. Instruction in Basic Life Support and in the techniques of humidity and oxygen therapy is provided. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

RTH 102 THERAPY II

This course covers sampling and interpretation of arterial blood gases and the use of the patient chart. The physiology underlying the control, exchange, and transport of respiratory gases is discussed. Therapeutic modalities are covered in detail and are practiced in the laboratory. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: RTH 101.

RTH 103 THERAPY III

This course introduces mechanical ventilation and intensive care techniques. The use and maintenance of artificial airways are discussed. Monitoring patients on mechanical ventilation and the use of patient progress notes as a source of information are emphasized. Patient assessment skills are further refined. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: RTH 102.

RTH 104 THERAPY IV

This course continues the study of ventilators and artificial airways. Topics include techniques of patient assessment involving chest radiography, bedside pulmonary function, and hemodynamic assessment. Pediatric assessment, the birth process, and pediatric respiratory care are covered. The class examines respiratory care of the patient with an artificial airway. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: RTH 103.

RTH 111 TECHNICAL CLINICAL I

Technical Clinical I introduces the clinical component of respiratory care.

The student becomes familiar with the physical facilities of the clinical affiliates and with the basic organization and record-keeping procedures of a respiratory care department. The course also introduces the practical aspects of patient care and of respiratory care equipment. Course Hours Per Week: Class, 0. Clinical, 6. Quarter Hours Credit, 2. Prerequisite: Enrollment in the Respiratory Care Technician or Technology program. Corequisites: MAT 131, RTH 101, SCI 130.

RTH 112 TECHNICAL CLINICAL II

Technical Clinical II provides a rotation in which the student takes responsibility for patient care. The student is evaluated for competence in delivering the basic modalities of therapy. Emphasis is placed on the development of a student's clinical judgment by stressing the application of classroom material to patient contact experiences. Course Hours Per Week: Class, 0. Clinical, 15. Quarter Hours Credit, 5. Prerequisites: MAT 131, RTH 101, RTH 111, SCI 130. Corequisites: BIO 131, RTH 102.

RTH 113 TECHNICAL CLINICAL III

This course introduces the student to the technical characteristics of mechanical ventilators. In the hospital setting, the student learns how a mechanical ventilator operates. The ventilator controls, troubleshooting the ventilator in case of malfunction, ventilator circuit and patient setup, and ventilator circuit exchange are covered. This course also introduces the student to the care of patients requiring intensive respiratory treatment and continuous mechanical ventilation. Course Hours Per Week: Class, 0. Clinical, 15. Quarter Hours Credit, 5. Prerequisites: BIO 131, RTH 102, RTH 112. Corequisites: BIO 132, MED 130, RTH 103.

RTH 114 TECHNICAL CLINICAL IV

This course facilitates the transition from the role of the student to the role of the practicing respiratory care professional. Special rotations are offered as feasible in the areas of physical therapy, pathology, out-patient clinics, and pediatrics. Aspects of ventilator commitment, ventilator monitoring, and patient weaning are included. Mechanical ventilation techniques are continued. Course Hours Per Week: Class, 0. Clinical, 24. Quarter Hours Credit, 8. Prerequisites: BIO 132, MED 130, RTH 103, RTH 113. Corequisites: BIO 133, RTH 104.

RTH 201 THERAPY V

This course is a continuation of the theory and procedures related to mechanical ventilation. Emphasis is on the interpretation and application of blood gas values, physiological monitoring, and weaning procedures and techniques. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisites: BIO 133, RTH 104.

RTH 202 CLINICAL PRACTICE V

Clinical Practice V provides the first rotations in which the student takes responsibility for patient care. The student is evaluated for competence in delivering the basic modalities of therapy. In addition, ancillary tasks such as EKG, equipment decontamination, and patient reporting are covered. Emphasis is on developing the student's clinical judgement by stressing application of classroom material to patient contact experiences. Course Hours Per Week: Class, 0. Clinical, 15. Quarter Hours Credit, 5. Prerequisites: BIO 133, RTH 104, RTH 114. Corequisites: PHY 130, RTH 201.

RTH 203 THERAPY VI

This course covers the knowledge and skills the student must have to provide mechanical ventilation for neonatal and pediatric patients. Common pediatric diseases and their treatment are emphasized. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: RTH 201.

RTH 204 CLINICAL PRACTICE VI

This course continues to examine the care of patients requiring intensive respiratory treatment and continuous mechanical ventilation. All aspects of ventilator commitment, ventilator monitoring, weaning, arterial

blood gas puncture, and nasotracheal suction are practiced and evaluated in the intensive care units of the clinical affiliates. Pediatric respiratory care, including general therapy and treatment modalities, is introduced. Course Hours Per Week: Class, 0. Clinical, 15. Quarter Hours Credit, 5. Prerequisites: RTH 201, RTH 202. Corequisite: RTH 203.

RTH 205 THERAPY VII

This course covers the clinical management of cardiopulmonary arrest and the management of patients by the manipulation of hemodynamic parameters. Emphasis is on the management of the critically ill patient in the intensive care unit. The techniques and procedures of pulmonary function testing are emphasized. Current respiratory therapy literature is studied. Test materials are reviewed to prepare for national certification testing. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: RTH 203.

RTH 206 CLINICAL PRACTICE VII

This course provides the student with the opportunity to master the critical patient care skills and techniques introduced during Clinical Practice VI. The student becomes fully involved with pediatric and neonatal therapy by rotating through general pediatric, pediatric intensive care, and premature intensive care units. Clinical experience with cardiopulmonary diagnostics, specifically pulmonary function testing and interpretation, is also scheduled. Course Hours Per Week: Class, 0. Clinical, 15. Quarter Hours Credit, 5. Prerequisites: RTH 203, RTH 204. Corequisite: RTH 205.

Science

SCI 125 STUDY OF THE UNIVERSE (COSMOS)

This interdisciplinary course traces the scientific evolution of the universe as well as man's theories about it. The course introduces such topics as galactic evolution, whale communication, Greek mythology, 17th century Dutch exploration, life on other planets, and the relationship between Earth and its inhabitants. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

SCI 130 INTRODUCTION TO APPLIED SCIENCE

This course introduces the student to biology and the physical sciences. Through lectures, demonstrations, and laboratory exercises, the student studies the essential elements of chemistry, biology, and physics that provide a foundation for curriculum courses in respiratory care and other curriculum courses in science. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

SCI 135 PHYSICAL SCIENCE FOR DENTAL TECHNICIANS

This course provides a study of the basic physical and chemical principles encountered in working with dental materials. Topics include introductory inorganic and organic chemistry. The metallic elements and those compounds with physical properties advantageous to dental work are emphasized. Physical principles include those which cause stress, strain, distortion, and potential stability or instability in dental materials. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: None.

Semiconductor Technology

SCT 101 INTRODUCTION TO SEMICONDUCTOR AND MICROELECTRONICS TECHNOLOGY

This course introduces the student to the field of microelectronics and semiconductor processing. The course provides an overview of the history of the industry, job requirements and opportunities, vocabulary, and types of microelectronics devices manufactured. The basics of semiconductor materials, properties, and fabrication procedures are included. Course

Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

SCT 200 MICROELECTRONICS PROCESSING AND DEVICE DESIGN

This course provides an in-depth study of the field of microelectronics and micro-chip processing technology. Emphasis is on oxidation, diffusion, photolithography, and metallization. Basic bipolar and unipolar IC layouts are developed by a study of design rules and other layout parameters/constraints. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: PHY 120 or equivalent.

SCT 205 MECHANICS OF HIGH TECHNOLOGY

This course introduces the student to the major principles and concepts of mechanical processes common to various high-technology industries. Major topics include gas and liquid flow measurement and control, environmental habitat regulation, basic vacuum systems, process heating, filtration and purification techniques for liquids and gases, and measurement instrumentation. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: SCT 200.

SCT 210 SEMICONDUCTOR DEVICE ANALYSIS AND PHYSICAL LAYOUT

This course is designed to enhance the student's knowledge in the field of microelectronics and semiconductor processing. Lab work involves the type of measuring, testing, and inspection equipment used for microelectronic circuits. Classroom lectures familiarize the student with the process of wafer fabrication to include circuit layout, mask making, photolithography, diffusion, and thin-film processes. Lectures also cover the characterization of the process control devices, logical to physical relationship of microelectronic circuits, reliability, and failure analysis. Course Hours Per Week: Class, 3. Lab, 4. Quarter Hours Credit, 5. Prerequisite: SCT 200 or equivalent.

Secretarial

SEC 100 KEYBOARDING

This course provides intensive training in the basic skills necessary to input data using an alphanumeric keyboard. Electronic typewriters, microcomputers, and word processors are introduced. Accuracy is stressed in teaching alpha, numeric, and symbol keys. A speed of 25 words per minute is the minimum competency level. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SEC 101 TYPEWRITING I

This course introduces the touch typing system and emphasizes mastery of the keyboard, simple business correspondence, and tabulation. A minimum speed of 30 words per minute is required. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: None.

SEC 102 TYPEWRITING II

This course, a continuation of SEC 101, emphasizes developing speed and accuracy as applicable in tabulation, manuscript, correspondence, and business forms. A minimum speed of 40 words per minute is required. Individualized and self-instructional methods are used. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: SEC 101.

SEC 103 TYPEWRITING III

This course deals with production typing problems and speed building, with emphasis on developing the student's expertise in producing mailable copies. The production units are tabulation, manuscripts, correspondence, and business forms. Individualized and self-instructional methods are used. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: SEC 102.

SEC 109 PROFESSIONAL DEVELOPMENT

This course is designed to provide an awareness of the "people" skills essential for job success. Topics include developing a positive self-image and a positive professional image, ethics, time management, human relations and communication skills, organizational dynamics, and professional development. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SEC 110 BUSINESS MACHINES

This course is a general survey of machines used in business and industry. Learning techniques; processes; and the operation of such machines as calculators, reprographic machines, dictation-transcription machines, and the keypunch machine are covered. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SEC 111 PHARMACY TYPEWRITING

This course introduces the touch typing system. Emphasis is on mastery of the keyboard, simple business correspondence, tabulation, and pharmacy forms and labels. A minimum speed of 30 words per minute is required. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: None.

SEC 112 GREGG SHORTHAND I

This course prepares the student in the theory and practice of reading and writing shorthand and emphasizes penmanship, phonetics, word families, brief forms, and phrases. Shorthand theory is stressed. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: ENG 101.

SEC 113 GREGG SHORTHAND II

This course further develops the student's mastery of shorthand through concentrated practice in reading and writing shorthand. The course also covers shorthand outlines and two-letter post office abbreviations for the 50 states. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: ENG 102, SEC 101, SEC 112 or equivalents.

SEC 114 GREGG SHORTHAND III

This course further emphasizes theory, speed building, and accuracy. Office-style dictation and transcription are introduced. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: ENG 103, SEC 102, SEC 113 or equivalents.

SEC 115 RECORDS MANAGEMENT

This course covers the fundamentals of filing and retrieving records by each of the three major filing systems commonly found in offices. Theory and practice are combined with the use of a simulated office filing system. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

SEC 125 MEDICAL RECORDS MANAGEMENT

This course covers the fundamentals of filing and retrieving records by using each of the three major filing systems found in most medical offices. The student identifies and describes the structure of various medical record forms, as well as assembling and analyzing their content. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

SEC 128 MEDICAL LAW AND ETHICS

This course emphasizes the laws that govern the practice of medicine, differentiates between the various practice arrangements and their legal implications, identifies medical services available to the public in the community, and looks at the way each of these contributes to comprehensive care. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SEC 201 TYPEWRITING IV

This course, through typing straight copy, develops the student's

production speed, stroke control, and accuracy. Emphasis is on maintaining typing speed; on applying typing skills in situations requiring decision making or time limitations; and on producing neat, attractive, and mailable copy. All production work is timed. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: SEC 103.

SEC 204 SIMULATED OFFICE APPLICATION

This course provides the typist a transition from the classroom to the office. Emphasis is on speed building by typing straight copy, increased skill in production utilizing material closely related to the actual office situation, and the development of the basic concepts and basic skills of word processing. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisites: SEC 201, SEC 260 or equivalents.

SEC 215 DICTATION AND TRANSCRIPTION I

This course is designed to develop the student's skill in taking dictation and transcribing at the typewriter. The course reviews taking dictation of familiar and unfamiliar material at varying speeds. A minimum dictation rate of 100 words per minute for five minutes on new material is required. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: SEC 114.

SEC 216 DICTATION AND TRANSCRIPTION II

This course is designed to develop the student's accuracy, speed, and technical vocabulary needed to satisfy the stenographic requirements for an executive secretary. A minimum dictation rate of 110 words per minute for five minutes on new material is required. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: SEC 215.

SEC 224 MEDICAL SIMULATED OFFICE APPLICATION

This course gives the student a simulated office environment as a transition from the classroom to the medical office. Emphasis is on skills required in medical secretarial functions. The student builds speed and accuracy using materials closely related to those used in medical offices. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: SEC 201.

SEC 230 MACHINE DICTATION AND TRANSCRIPTION

This course introduces the elements of the machine transcription process and provides study and practice in using transcribing equipment. Introductory word processing concepts on the microcomputer are combined with transcription. The course also provides hands-on experience with job simulations performed in the word processing laboratory. Proficiency in punctuation, grammar, spelling, word usage, and letter style is emphasized. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: ENG 102, SEC 102.

SEC 231 ABC SHORTHAND

This course is designed to enable the student to develop ABC Shorthand principles. The student gains proficiency in recognizing sounds and recording them in shorthand. Transcription at the typewriter is also introduced. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

SEC 232 ABC SHORTHAND DICTATION AND TRANSCRIPTION

This course is designed to develop the student's shorthand speed with unfamiliar dictation to a minimum of 60 words per minute for three minutes. The student is required to produce mailable transcripts of this dictation with at least 95 percent accuracy. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: SEC 231.

SEC 250 MEDICAL TERMINOLOGY

This introductory course in the language of medicine focuses on the building of medical words through the use of word components. Emphasis is on basic root words, prefixes, and suffixes upon which medical words are built. Through this study, the student becomes familiar with the structure of each anatomical system and with some of the more common

diseases. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SEC 251 MEDICAL TRANSCRIPTION

This course introduces the elements of the machine transcription process, provides study and practice in using transcription and word processing equipment, and provides practical application of medical terms and procedures. Basic vocabulary for case histories is introduced, discussed, and used as the student transcribes relevant patient work-ups. The student becomes proficient in the use of basic medical prefixes, suffixes, and roots, and acquires knowledge of basic anatomy and physiology terminology. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: ENG 103, SEC 103, SEC 250 or equivalents.

SEC 260 WORD PROCESSING I

This course provides an in-depth introduction to word processing as a total communications system for both administrative and correspondence positions. Emphasis is on vocabulary, applications, and operations of various components in the word processing systems. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: SEC 103 or equivalent.

SEC 261 WORD PROCESSING II

This course provides production-level skill development in word processing. Emphasis is on accuracy in production as well as skills in editing and determining format of technical, medical, accounting, and executive documents. Advanced applications of word processing are also explored. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: ENG 102, SEC 260 or equivalents.

SEC 262 WORD PROCESSING III

This course focuses on advanced skills in office word processing technology using the microcomputer. Language arts skills and production typewriting skills are emphasized. Documents such as business letters, tables, and manuscripts of medical, legal, and technical data are produced. A typewriting speed of 50 words per minute and a thorough knowledge of typewriting techniques are required. Course Hours Per Week: Class, 1. Lab, 4. Quarter Hours Credit, 3. Prerequisites: ENG 103, SEC 261 or equivalents.

SEC 270 BUSINESS COMMUNICATION

This course focuses on the writing skills and techniques necessary for effective communication in business. Strong grammatical skills are emphasized for the generation of correspondence typically used in business situations. The use of word processing technology is encouraged in composing required documents for the course. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisites: ENG 103, SEC 101 or equivalents.

SEC 280 ADMINISTRATIVE OFFICE PROCEDURES

This course acquaints the student with the responsibilities encountered by a general office worker during the work day. The following areas are included: receptionist's duties, mail handling, telephone techniques, travel information, telegrams, office records, purchasing supplies, office organization, and insurance claims. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: SEC 260 and SEC 114 or SEC 231.

SEC 284 MEDICAL INSURANCE

In this course, the student studies the concepts of medical insurance, including the legal principles underlying insurance contracts; the most commonly used insurance forms in medical offices; currently used coding systems; and computerized billing systems. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SEC 290 WORK EXPERIENCE

In this course the student is assigned to work in a business, technical, medical, or professional office in order to acquire actual work experience.

Opportunity is provided for the practical application of skills and theory studied in the classroom. Course Hours Per Week: Class, 1. Lab, 20. Quarter Hours Credit, 3. Prerequisite or Corequisite: SEC 280.

Sociology

SOC 105 CAREER PREPARATORY TRAINING FOR FORMER HOMEMAKERS

This course is designed to prepare women formerly outside the job market or those employed only on a part-time basis for competing for full-time jobs and/or for jobs which in the past have been traditionally considered for males only. Emphasis is on counseling, interpersonal relations, and communications. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SOC 110 PRINCIPLES OF SOCIOLOGY

This introductory study of culture, social institutions, socialization, collective behavior, deviance, population, urbanization, and social change is designed to provide the student with the ability to understand the concepts and issues involved in the study of human society; to find adequate explanations for social problems in our society; and to reach an understanding of how society works. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SOC 120 MARRIAGE AND FAMILY

This course is a study of the origin and development of the family as a social and economic institution. The course focuses on the concepts of courtship, marriage and parenthood, and the problems facing the contemporary American family. The student also prepares a report on a topic involving marriage and family relationships. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SOC 151 INTRODUCTION TO SOCIOLOGY

This course is an introductory study of culture, socialization, collective behavior, deviance, social problems, population, intergroup relations, social change, and social institutions. The course helps the student analyze social problems in modern society and find ways for adapting to social change. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

SOC 201 SOCIAL PROBLEMS

This course is an introduction to such major contemporary social problems in the United States as crime, poverty, aging, race relations, and mental illness. Emphasis is on a sociological analysis of such problems as they are affected by social change. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

Spanish

SPA 151 ELEMENTARY SPANISH I

This course introduces the fundamental elements of the Spanish language. The emphasis flows from listening and speaking to basic reading and writing skills. Cultural awareness is incorporated into classwork. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

SPA 152 ELEMENTARY SPANISH II

This course further develops knowledge of fundamental elements of the Spanish language. Emphasis continues to be on oral/aural skills with increasing attention to written communication. Cultural awareness is incorporated into language instruction. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: SPA 151.

SPA 153 ELEMENTARY SPANISH III

This course completes a basic overview of fundamental elements of the Spanish language. Emphasis is on increased ability to comprehend and communicate in the spoken and written language. The course also includes an increased understanding of cultural components. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: SPA 152.

SPA 201 INTERMEDIATE SPANISH I

This is the final course that focuses on the foundations of the Spanish language. Emphasis is on oral/aural skills at a higher structure level than previous courses, while reading and writing skills are increasingly emphasized. The course continues to focus on cultural awareness. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: SPA 153.

SPA 202 INTERMEDIATE SPANISH II

This course provides a rapid review of previous materials, and it serves as an introduction to the more sophisticated points of Spanish structure. Attention to reading and writing skills continues, and selected literary works, which contribute to a deeper awareness of the cultural heritage, are introduced. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: SPA 201.

Speech

SPH 111 INTERPERSONAL COMMUNICATIONS I

This course provides students a basis for improved understanding of themselves and of others as a step toward more effective interpersonal relations. By learning theories of interpersonal communication and having the opportunity to apply those theories in classroom activities, the student builds confidence in communicating with others. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SPH 112 INTERPERSONAL COMMUNICATIONS II

This course focuses on skills which promote continued self-communication and more realistic, positive communication with others. Practical applications and exercises are used to develop or enhance skills in self-disclosure, assertiveness, perception, verbal and nonverbal communication, listening and feedback, constructive resolution of conflict, and group problem solving. Successful completion of Interpersonal Communications I or knowledge of transactional analysis is desirable as a background for this course. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SPH 115 INTRODUCTION TO PUBLIC SPEAKING

This course assists the student in developing confidence and poise in various speaking situations through an awareness of the process involved in public speaking and interpersonal communication. The student participates in formal speeches, group discussions, and conversations and by evaluating the oral presentations of others. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SPH 120 VOICE AND DICTION

This course in speech pronunciation and voice quality helps the student develop effective voice and speech. The course combines extensive practical exercises and a study of how the voice is made and how it functions. This combination allows the student to reach maximum efficiency in developing a voice which is understandable, audible, pleasant sounding, animated, and interesting. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SPH 151 PUBLIC SPEAKING

This course introduces the student to the fundamentals of oral communication through practice in interpersonal, group, and public speaking situations. The student also completes a special media project for use in an oral presentation. The student demonstrates the ability to organize and deliver a speech with poise and confidence. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

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Term Expires:

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A. Dillon Wilson, <i>B.S., M.A.</i>	Program Director, General Education

Faculty and Staff

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Oscar L. Bolick	Evening Housekeeping Supervisor, Auxiliary Services
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Vernon L. Bridges II, B.S.	Mathematics Instructor, Developmental Studies
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Joe Anne Griffith, <i>B.S.</i>	Clinical Coordinator and Instructor, Pharmacy Technology
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Sylvia Hayes.....	Duplicating Equipment Operator, Communications and Marketing
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Kathy B. Kory, <i>M.S.</i>	Reading Instructor, Developmental Studies
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Melissa J. Lennon.....	Secretary, Academic Services
Brenda J. Lewis, <i>Secretarial Diploma</i>	Receptionist, Admissions and Registration
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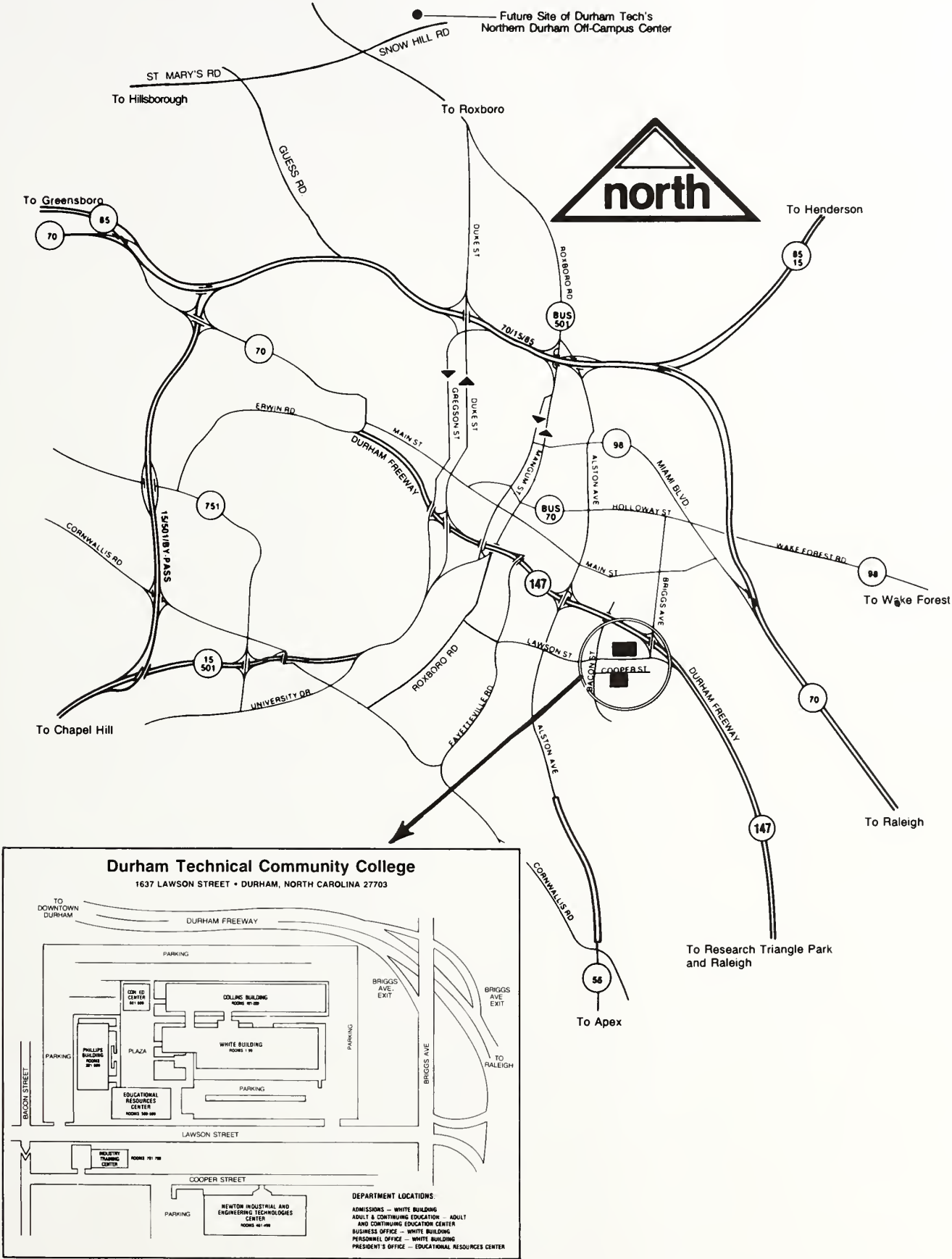
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Index

- Academic Calendar, 5-6
- Academic Department Heads, 104
- Academic Honesty, 23
- Academic Information, 18-24
- Academic Recognition, 21
- Accounting, 32
- Accreditation and Approbation, 8
- Adjunct Faculty, 109
- Administrative Office Technology, 33
- Administrative Staff of the College, 103
- Admission
 - Late, 11
 - Placement Testing, 9
 - Policy, 9
 - Procedure, 9
 - Requirements, 10
- Advisement, 11
- Adult and Continuing Education, 28-30
- Adult Education Programs, 29-30
- Adult High School Diploma Program, 30
- Architectural Drafting, 34
- Associate Degree Nursing, 10, 35
- Associate Degrees, 18, 24
- Attendance Requirements, 17, 22
- Automotive Mechanics, 36
- Board of Trustees, 103
- Books, 14
- Business Administration, 37
- Business Computer Programming, 38
- Career Emphasis Clusters, 25
- Career Planning and Placement Center, 25
- Certificates, 18
- Classification of Programs of Study, 18
- Classification of Students, 18
- College Work Study, 15
- College Transfer, 10, 24, 39
- Compensatory Education, 30
- Continuing Education Fees and Registration, 15, 28
- Counseling Services, 25
- Course Audit, 21
- Course Descriptions, 66-102
- Credit by Examination, 21
- Criminal Justice, 40
- Curriculum/Telecourse Center, 25
- Customized Training for Business and Industry, 29
- Dental Laboratory Technology, 10, 41
- Developmental Studies, 9
- Digital Electronic Repair, 42
- Diplomas, 18
- Drug and Alcohol Policy, 22-23
- Durham Technical Community College
 - History, 7
 - Philosophy, 8
 - Purpose, 8
- Early Childhood Associate, 10, 43
- Educational Resources, 25
- Electronics Engineering Technology, 44
- English as a Second Language, 29
- Faculty and Staff of the College, 105-108
- Family Educational Rights and Privacy Act, 13
- Fees, 13-15, 28
- Financial Aid, 15-17
- Fire Protection Technology, 45
- Full-Time Students, 18
- GED, 30
- General Education, 46
- General Information, 7
- General Office, 47
- Grade
 - Change, 21
 - Incomplete, 20
 - Reports, 12
 - Special, 20
- Grade Point Average, 21
- Grading System, 20
- Graduation
 - Fee, 14
 - Requirements, 12
- Grants, 15
- Handicapped and Learning Disabled Services, 26
- High School Equivalency Program (GED), 30
- Industrial Electricity/Motors and Controls, 48
- Industrial Management Technology, 49
- Insurance, 14-15
- International Students, 11, 25
- Job Placement, 25
- Library, 25
- Literacy Skills, 29-30
- Loans, 16
- Machinist, 50
- Map, 111
- Mathematics, Skills Requirements, 10
- Medical Office Technology, 51
- Microcomputer Systems Technology, 52
- Microelectronics Technology, 53
- Military Science Technology, 54
- Optical Laboratory Mechanics, 55
- Opticianry, 56
- Paralegal Technology, 57
- Parking Requirements, 15
- Part-Time Students, 18
- Pharmacy Technology, 10, 58
- Phlebotomy, 59
- Placement Testing, 9
- Plan of Study, 18
- Practical Nursing, 10, 60
- Prerequisite Courses, 19
- Private Security, 40
- Program Directors, 104
- Programs of Study List, 31
- Protective Services Technology, 40
- Readmission, 11
- Real Estate Appraisal, 61
- Real Estate Technical Specialty, 62
- Refund Policy, 14
- Registration, 12, 28
- Release of Information, 13
- Residency Status, 13
- Residential Carpentry and Preservation, 63
- Respiratory Care Technician, 10, 64
- Respiratory Care Technology, 10, 65
- Retired Senior Volunteer Program (RSVP), 29
- Scholarships, 15-16
- Single Parent/Homemaker Program, 26
- Small Business Education Center, 29
- Special Students, 11
- Standards of Progress, 17, 21
- Student Advisory Council, 27
- Student Ambassador Program, 27
- Student
 - Activities, 26
 - Conduct, 17, 26
 - Disciplinary Procedures, 23
 - Grievance Procedures, 23
- Student-Instructor Responsibilities, 22
- Supplies, 14
- Transfer Credit, 11, 19
- Transfer
 - To Another Program of Study, 11, 20
 - To Senior Institutions, 24
- Transcripts, 9, 12, 15
- Tuition
 - Exemption for Senior Citizens, 13, 28
 - Out-of-State Students, 13
 - Refund Policy, 14
 - Residents of North Carolina, 13
- Tutorial Services, 27
- Veterans
 - Educational Benefits, 16, 17
 - Standards of Progress, Attendance and Conduct, 17
- Visiting Artist Program, 27
- Withdrawal
 - From a Course, 20-21
 - Regulations, 12

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